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THE AMERICAN
ELEMENTARY SCHOOL

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CHARLES E. CHADSEY

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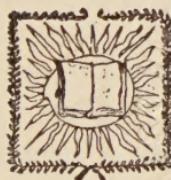
THE AMERICAN ELEMENTARY SCHOOL

A STUDY IN FUNDAMENTAL PRINCIPLES

BY

JOHN LOUIS HORN, 1883-

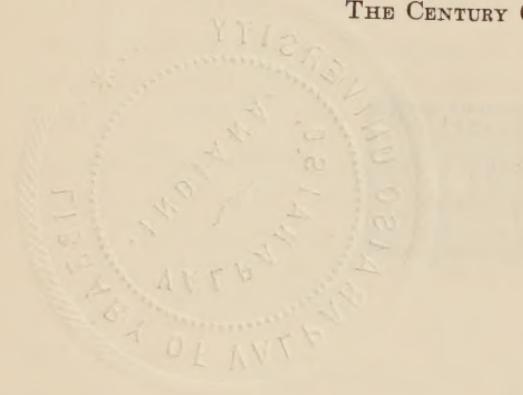
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EDITOR'S INTRODUCTION

The remarkable growth of the American high school, which has been one of the most outstanding features of the educational history of the twentieth century, has carried with it the necessity for the reconsideration of nearly all of the fundamental problems of the American school. Not only has this great growth made critical the problems of financing education; it has also stimulated greatly the progress of the reorganization of the public school system. The rapid growth, for instance, of the junior high school or intermediate school has been made possible in many communities not through the conviction of the taxpayers, the board of education, or even the superintendent that through this new division improvement in curriculum will result, but because it seemed to offer frequently a tangible method of securing better administrative conditions than would be possible either through the erection of additional high schools or elementary schools without any such reorganization. On the other hand the comparative ease with which such radical reorganizations could at least be commenced in many communities made possible the consideration of advisable reorganizations, rearrangements, omissions and additions to the curriculum.

The fact that we now have in a large number of the public school systems of the United States numerous junior high schools located in their own buildings, manned by teachers often prepared for other types of

work and unsympathetic with the new administrative unit, brings about a situation which, while at first somewhat discouraging, seems in reality to be productive of genuine educational progress. The past differences in the concepts as to the types of changes desirable, the presence in all of our communities and school faculties of individuals, perhaps critical in their attitude towards these newer things, makes far more probable the continuance of a state of flux until out of it there shall be developed a system more standardized but at the same time based upon a thoroughly scientific study of the curriculum.

This desirable outcome will not, however, be secured unless at the same time America's most distinctive and fundamental institution, the American elementary school, shall have been reconstituted in the light of present conditions and future problems. It is with the hope that there may in this study of the elementary school be found suggestions of value to students of education that this volume is prepared. While there are available for the educational public many texts which deal with the elementary school in its various phases, this volume in a rather unique way presents the problem from the standpoint of public education as a whole. While not all may agree with the author's conclusions as to the origin and the place of the American elementary school, his treatment, even of topics which may be honestly questioned, is such as to stimulate thought and cannot but develop an attitude towards the problem which it is highly desirable for all young people who are preparing for educational work to secure. It is certainly fitting that at a time when nearly all are discussing the question as to the desirability of the six-year term of

the elementary school conclusions should be based upon carefully considered presentations of the field and scope of public education. This the author has succeeded in doing and brings together the consensus of opinion in a way which will be of value to our students of education in teacher-training institutions. There is no doubt that the drift of educational thought is towards greater participation by the state in the actual control of education. Some of the arguments used by the author of this text in supporting this idea may seem to many very advanced. It is always a question in the consideration of educational problems as to how far one is justified in presenting ideas which have not general acceptance. In view of the fact that so many real advantages can be shown to come from greater state control, the consideration of even extreme forms of this sort is suggestive and possibly may have an influence in securing what it is the aim of the author to try to bring about—a really greater equality of educational opportunity.

In the treatment of the various problems of organization, including the status of principal and teacher and the various problems which have to do with the pupil community, there has been the greatest pains to present examples of the most effective kind of instruction found in America. The volume as a whole is submitted to the educational public in the belief that it will meet several very real needs. There is a real place for courses of instruction centering around the elementary school which, as yet, has not been met effectively in our colleges of education. In our normal schools and more strictly teacher-training institutions this book should be found to have great value as a fundamental text. It is also prepared in such a way that it can be read to advantage

by teachers in service, and it is hoped that many who have not thought through the problems of the elementary school may find in this book a very real mine of information and inspiration.

CHARLES E. CHADSEY.

PREFACE

THE normal school student who has been introduced to her future profession from the many points of view of the teacher-training curriculum, requires a summarizing of her observation, practice-teaching, reading, and discussion. The experienced teacher engaged in the daily task of carrying on her share of the great responsibility of education is interested in a broader and more general view of the field than her everyday work, experience, and contact may, perchance, afford. The college student who is looking forward to public education as a profession must be introduced to the field of his future work within the limits of the scant time that may be spared in the crowded curriculum.

It is with a view to meeting these requirements that this book has been prepared. Every paragraph and every sentence—indeed, almost every word—has taken form in the process of presenting the field of public education to college seniors and juniors, and assisting them, as effectively as may be, to broad conceptions of the significance, organization, aims, and goals of publicly supported elementary schools in the United States.

In so far as the pages that follow have any merit, the writer feels only too keenly, and gladly acknowledges, his debt to all the thinkers on current educational problems—a debt that must be apparent on every page. Only occasionally, however, has specific reference to sources been made in the footnotes. But it would be ungracious

of him not to mention specifically his indebtedness to the members of the departments of education of the University of California and of Stanford University, and particularly to his friend and counsellor, Dean Elwood P. Cubberley of the last-named institution. For the reading of the manuscript, and suggestions generously made from out of his rich experience, the writer gratefully acknowledges his debt to Dr. C. E. Chadsey, Dean of the College of Education of the University of Illinois. Responsibility in full for inaccuracies and opinions expressed belongs exclusively to the author.

I am indebted to my colleague, Professor Lucy Lockwood Hazard, of the department of English at Mills College, for generous assistance; she read this volume in proof and made valuable suggestions with regard to form.

It will be noted that the bibliography given at the end of the chapters is obviously not exhaustive. It has not been the writer's object to refer to original sources, but rather to assist the student in finding easily the available material that might be used in elaborating those topics under discussion in which he may be particularly interested. Taken all together, the books referred to form a modest library readily obtainable, without which as a minimum no college instructor would undertake to use this book as the basis of his work in elementary education.

The questions found at the end of the chapters are not intended to serve the purpose of determining whether the student has faithfully done his work, or even whether he has comprehended it. These topics are deliberately designed to serve as incentives for the development of phases either inadequately or not at all covered in the chapter which they follow. As such, they form an in-

tegral part of the text, deliberately intended to assist in varying the courses of reading and discussion for which the text may be used as a basis. The proper use of these topics should enable individual groups and instructors to reportion the work in elementary education, developing those phases that interest them most, and giving minimum attention to topics that interest them least. No two groups using the topics as well as the text will do the work in the same manner.

JOHN LOUIS HORN.

Mills College, Calif., Dec. 1, 1922.

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PART I
INTRODUCTORY

THE AMERICAN ELEMENTARY SCHOOL

CHAPTER I

THE FIELD OF PUBLIC EDUCATION

Public education a social instrumentality.—Public education in the United States is a functioning social institution. It has a history, traditions, policies, habits, and methods. Like most social institutions, it is not necessarily conscious of itself as a mechanism. Like all living social institutions, it would continue to function were books about it never to be written, were it never to be subjected to analysis and discussion.

As is the case with all really living institutions, these traditions, goals, methods, and policies are continually changing, and in the course of these changes there have been accumulated certain now useless, but at one time useful, characteristics. Many of the participants in public education are not themselves in any true sense conscious of the institution as a whole. They perform their function and take their place as instrumentalities in the institution without troubling themselves to secure a broad view of its significance and its scope.

But public education in the United States is an institution that expends annually vast funds; that deliberately engages many years of the lives of millions of chil-

dren; that assumes a definite responsibility for the training of the generations; and it is the business of such an institution to be conscious of its function, to examine its methods and goals, to test their efficacy, and in every possible way to improve its procedure.

Especially is it the business of the teacher who would earn the right to professional status, who would function consciously as an educator, who would give an account of his stewardship, who would honestly and earnestly bear the responsibility of an expert to whom children may be entrusted, deliberately to examine the institution of which he is a part, and which he in turn takes a share in directing.

The significance of education.—What is education? The theory that education is learning, and is equivalent to an accumulation of knowledge, has been frequently and correctly challenged. For the now sufficiently established reason that only such knowledge as functions is education, mere knowledge may be useless either because the content itself is of no avail to the individual under any conditions or, where the knowledge might be useful, because it has not, as far as the particular individual is concerned, been related to its own form of doing; in other words, has not been transformed as conduct. Neither can one say that education is something that is acquired or attained by going to school; for the assumption that education is a goal arrived at only by institutional means is also obviously faulty. If education means living, changing, developing, adapting, growing, the processs may well go on without formal schooling, as it always has and always will go on. Education antedates schooling, both for the social group, since there was edu-

cation before there were schools, and for the individual, since his education goes on for many years before he presents himself to the school institution.

Education may be viewed from many angles. From the point of view of the individual to be educated, it "may be tentatively defined as the process by means of which the individual acquires experiences that will function in rendering more efficient his future action."¹ From the point of view of the formal educating means, education "is the influence exerted by the school, technically so called, upon the individual."² From the point of view of the good of the community of which the individual is a member, particularly in primitive communities, "the deepest aim of this education is, of course, the perpetuation of the group. In this regard the individual does not count. What he may want or desire is not considered; the life of the group is the only important fact, even for the individual."³ "The task of education," says Professor Thorndike, "is to make changes in human beings."⁴

Education as a practical problem.—There is available a large and interesting literature on the theoretical significance and meaning of education. To the teacher and practical educator, however, education presents itself in the form of a problem. Phrased in its most obvious terms as it must be faced every day, this problem is: What shall the school institution do for and with the

¹ W. C. Bagley, *The Educative Process*, p. 22. (Macmillan, 1920.)

² H. H. Horne, *The Philosophy of Education*, p. 6. (Macmillan, 1905.)

³ J. K. Hart, *Democracy in Education*, p. 20. (Century, 1918.)

⁴ E. L. Thorndike, "Measurement in Education." 21st Yearbook of the National Society for the Study of Education, p. 1.

millions of children who come to it with the utmost confidence in its ability? How best shall it use the time of these children; how expend the funds, and employ the equipment available; how serve every individual interest and the interests of the community at large.

Three factors involved in the problem of education.

—In the narrower sense of formal schooling as one phase of the general education of the individual, the problem as thus faced daily by the teacher in its pragmatic rather than its theoretical form, consists of three primary factors: the child, the community, and the means or school institution. An attempt to solve the problem of education without reducing it to ever smaller and more concrete questions leaves the thinker permanently in the realm of speculation. It is only by constant subdivision of the difficult questions into their many phases that definite and concrete conclusions can be arrived at. A study of the general problem which has been stated must be attempted by means of constant subdivision until the particular point is reached in any phase of the question that can be finally handled.

The child as a factor.—The child is an unstable factor in the problem of education. Children vary physically as well as mentally. Even in a historic and social sense this factor is unstable, for childhood may be a longer or a shorter period depending on time and history, or on the community in which the child lives. As a period of preparation, the duration of infancy is a variable period, since it takes longer to prepare to participate in a highly complex society than in a primitive community, in which the experience necessary may be easily acquired by association with the parents.

It has been pointed out that human infancy has become ever longer with the evolution of society toward increasing complexity, but the school must bear in mind that both of the factors of infancy, i.e. dependence and plasticity, have biological and physiological limitations. Regardless of the increasing complexity of life and the consequent desirability of lengthening the period of training, there are fixed limits. Infancy cannot be indefinitely extended. The increasing complexity of human institutions necessitating an ever greater amount of training on the part of the future participants may go on, but the duration of human life remains approximately the same, and the point of anatomical and mental maturation remains at approximately the same age. So long as human life was so little organized that children might readily become participants at puberty or prior thereto, there were years left to the child that might be used for additional training. But when this process of training reaches the point where it frequently requires one-third of human life, and endures well beyond the point at which the individual is fully formed and matured, the problem becomes one of using a minimum of time with a maximum of efficiency.

The community as a factor.—The character of the community itself is also a factor making for instability in the problem of education; education cannot mean the same thing in different communities, or in the same community at different times. How significant the education of youth is to the community may be seen from the rapidity with which societies adopting new economic or political ideas attack the problem of public education. Almost before they faced their great political and eco-

nomic questions, the new republics of Russia and Germany began remodeling their educational systems. Educational ideals and methods well adjusted to the needs of an empire were found no longer suitable for the new order. Similarly, it has become ever more clear that the factor of democracy is in America so vital that it is transforming not only traditional curriculum content, but traditional procedure and teaching method as well. Education is not and cannot be always and everywhere the same; it must adapt itself to conditions.

The school institution as a factor.—The school institution itself in meeting these variable and changing factors must be a constantly changing organism; as it revises its goals, as it learns more of the child, as it changes with the community, it must ever change the concept of its function and alter its methods. There is no room in education for the attitude of complacency.

Education and the teacher.—The teacher, as educator, is called to a vocation that gives the very greatest scope for active participation in the most important problem that any community ever faces. In order conscientiously to carry out the great trust that society reposes in him, the trust of specialized nurture, the teacher has an opportunity for the expression of every fine and noble impulse in a degree that almost no other vocation provides.

What is education? To the actual practitioner, education is a problem that may be subdivided into many subordinate problems, all of which, in contrast with problems in the field of the natural sciences, deal with factors that in their very nature are unstable. The implication of this simple fact of the instability of the main factors of the problem, is that final answers and solutions

are not to be arrived at in this field. There are no certain and inevitable answers to be found to the great questions of education. The discussions in this field must ever lead toward, but not to solution. While facts and laws may be established within specific subdivisions of the field, the final answers, themselves, will never become scientific laws such as physics and chemistry furnish. The teacher cannot be supplied with a series of rules of thumb that will work, with a key that will always unlock, with a solution previously made to meet difficulties that may thereafter occur.

The reasons for this lack of finality in the field of education are patent enough. They operate also in other fields of like inquiry, which deal with human beings in their social relations and institutions, as for example political science and economics. What then is the business of the teacher who would be prepared for his work, if his equipment is not to consist ultimately in a mastery of fixed and never-failing laws?

Briefly stated, this equipment should ultimately consist of an ability to take an intelligent and useful part in the discussion of the problems of education. The self-activity that accompanies the training in education should consist of participation in the discussion of its problems. For, ultimately, expertness in education means ability to participate in the solution of unsolved problems rather than knowledge of laws and procedure.

It may well be asked here whether there is room for the claim that modern education is an organized field of inquiry; whether it is not, after all, every one's field; whether the opinion of one is not as good as that of another. The answer to these questions must be negative.

The doing away with subjectivity and mere opinion is of the very essence of the modern scientific method in education.

Only in so far as it ceases to be true that the opinion of one is as good as that of another, does education become a technical field. The prospective participant in a discussion of the problems of education must be versed in the basic sciences of biology and psychology; he must have some conception of history as well as sociology and political science; he must further become acquainted with the specific history of public education from which he may learn what the accumulated experience of the profession has taught, what problems have been solved in the past; finally he must become master of the current objective procedure based on statistical method, which has become so great an instrument in the contemporary discussion and solution of concrete and definite subdivisions of the larger problem.

Although the answer to the problem—what is education?—can in the nature of things never be formulated in the form of ultimate laws, mere opinion and disregard of facts experimentally determined, must constantly give place to an increasing number of objective standards, and the ability to approach problems in a temper and mood that are objective and scientific in character. The attainment of a maximum of objectivity in the discussion of problems is the most marked tendency of current educational procedure.

Summary

The object of this chapter has been to make clear to the reader:

1. That the field of public education is a functioning

institution, which presents great problems whose solution can never be ultimate and final.

2. That there are three main factors involved, the child, the community, and the school institution, each of which is in the nature of things not fixed, but subject to change.

3. That while finalities and fixed laws in this field, as in other social sciences, are neither possible nor desirable, this does not preclude the methods and procedure of science.

Problems

The preceding chapter deliberately omits theoretical discussion of the meaning of education, viewing the scope of the book as a direct practical attack. A discussion of the general philosophy of education may be undertaken on the basis of the literature of that subject, reference to which is in part made below.

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CHAPTER II

THE SCOPE OF ELEMENTARY EDUCATION

Present general characteristics of the school.—The American public elementary school is a functioning institution. Its characteristics are definitely marked and deep-rooted in the history of American education. Among the most obvious of these characteristics are the following:

(1) It is the elementary school which establishes first contact with the child so far as his formal school education is concerned. The kindergarten, which in many well-organized school systems precedes the first grade, does not regard itself as a part of the formal school. Its function appears rather to be a better and more systematic accomplishment of that part of the child's pre-school training which is ordinarily left to the home. The kindergarten functionally replaces the family rather than the school.

(2) The typical American elementary school is a non-specialized institution, offering the same type of training to all throughout the period of their attendance. It is a single-curriculum school.

(3) The American elementary school is an eight-year school, each year corresponding to one grade. Typically it undertakes the training of the child from age six to age fourteen.

(4) It is a fundamental characteristic of the American

elementary school that it seems to assume that it is providing the only education that its children are to receive. While it is impossible for it to be unaware of the fact that numbers of its graduates are to go on with their education and to attend secondary schools, it is by tradition, and, indeed, by theory, bent upon giving a sense of completion in order to equip for life as well as possible those of its students who may end their formal schooling with the completion of the eighth grade. It conducts graduation exercises; it grants diplomas; and, as a matter of fact, it was, until thirty-five or forty years ago when the high-school development began, the only school attended by a large majority of the American people.

(5) The pupil community of the usual elementary school is a psychologically non-homogeneous group, consisting as it does of a large group of students who are definitely pre-adolescent, and of a smaller group who have definitely entered the period of adolescence.

(6) The American elementary school is a rudimentary and vernacular institution. It is typically confined to the one language, and limited to rudimentary and elementary subjects. It does not have the means of introducing the beginnings of the so-called secondary-school subjects even if it would do so, the teaching body being, on the whole, unprepared for such work.

(7) Finally, the American elementary school is characterized by the fact that its teaching staff is composed almost entirely of a special teacher-group. Its trained teachers are graduates of institutions whose function is limited to the preparation of prospective elementary-school teachers. These persons are ordinarily not qualified to rise in the educational ladder and assume

secondary-school positions, or to make fundamental changes in the elementary-school curriculum by adding advanced subjects.

We have in America a double system of teacher training normal schools for the elementary-school teachers, and college for the high-school teachers, which has given a certain rigid fixity to our schools and kept them as unfused, separate institutions.

Objections made to the elementary school as now organized.—The elementary school as now existing is being subjected to a series of indictments ever increasing in intensity, and the charges that are brought against it must be given consideration. Circumstances must be examined, and the faults actually found must be eradicated. Instead of pursuing by virtue of mere momentum fixed traditions, methods, and characteristics, many of which are traceable to historic accident rather than to definite, formulated theory, the elementary school must settle down to a conscious inquiry as to its own function, its objectives, and the means of attaining these objectives.

Among the charges being made against the efficiency of the elementary school, some of the most serious are the following:

(1) There is no theoretical ground for the number of years that a child is kept in the elementary school. Since the school has greatly improved its methods of teaching those fundamentals which are the principal object of its existence, this gain should be shown in a corresponding decrease in the length of time required to master them.

(2) The fact of taking too long to do this work is actually militating against the public welfare, in that num-

bers of elementary-school pupils become weary of the repetition in the upper grades of work heretofore completed, and drop out of school. These children ought to have been interested earlier in new fields and kept for longer and more thorough preparation.

(3) The period in a child's life at which he is dismissed from the elementary school is a poor time for him to make the change to the secondary school. It is the beginning of the restless adolescent period. It would be better for the welfare of the child were he by the time this period is reached definitely established in a secondary school, and looking forward to some years of work prior to a break between schools or completion of one of the links in the chain of schools.

(4) Age fourteen is too late a period for the beginning of differentiation. There is some optimum period when the common curriculum for all ceases to be of value, when specialization and differentiated education should begin on the basis of variation in intelligence, in interests, in economic prospects, or on one of many other bases. It is wasteful to defer this point of specialization to so late an age as fourteen.

(5) The school's tendency toward finality, its undercurrent of assumption that for many children it is the only school that they will ever attend, is necessarily the cause of a great deal of overlapping between it and the high school. On this theory much work is done in the elementary school that might well be left to the secondary school. This underlying assumption of finality is also contrary to the growing feeling that eight years is too short a period for compulsory education. In view of the ever-mounting age up to which the state compels school

attendance, it would be well for the elementary school to assume exactly the opposite tendency to that now motivating it. It should be considered quite definitely as an incomplete school—one phase in the process of the child's education.

Summed up, these charges all tend toward the single demand for a shorter elementary-school period which shall (1) consume only the time necessary for the completion of fixed tasks, thus helping to hold more children for higher education; (2) conform to the facts of psychological development by making the change from school to school at a more propitious period and begin differentiation and individualization of the educational process at the correct developmental point; and (3), finally, by sending children out before the expiration of the compulsory-age period, deliberately proclaim itself a first and preparatory phase of education for all and not as at present, a unit complete in itself for many.

Historical basis of present practice.—The present character of the elementary school and the value of the criticism directed against it may be made to stand out more clearly if looked at in the light of its historic background.

We in America do not have a homogeneous, carefully planned, system of public schools. We have two systems: an elementary-school system, and a secondary-school system. These systems were not instituted and deliberately devised to complement one another, to articulate, to lead naturally from one to the other. They have different historic roots. The elementary school is said by some students to have been modeled on the common schools of Prussia, where one finds a system of education

for the masses as opposed to a small group of the population for whom other provisions are made. These schools were intended to be and have always remained rudimentary and vernacular schools. They are intended to lead not to higher education but to confirmation and apprenticeship. They are intended to be complete in themselves, and to prepare for life. The "Volksschule" provides all the education received by ninety-seven per cent. of the population of the German Empire. This school does not lead to the "Gymnasium" or to the university. Its graduates are neither prepared nor eligible for admission to higher schools unless it be the trade schools which have to a large extent replaced the apprenticeship system.

At the time when the American elementary school was established, it represented a great advance in public education. We did not have nearly so efficient an educating medium. The appealing and outstanding characteristic of this school at that time was not the fact that it was rudimentary and vernacular, but rather the fact that it was a government-controlled, free, popular, tax-supported school for the children of all.

At the time that this school was established, free secondary education for as many of the children of the community as could avail themselves of it, was undreamed of. This idea has in fact just established itself in our own generation. The old Latin grammar school was an aristocratic institution engaged in preparing a very few to enter college. When the demand for more education arose, for a longer period and additional subjects, we were not in a position to remodel the elementary school for reasons of untrained teaching personnel to be noted in more detail below. Instead, we

superimposed on this institution the secondary school—superimposed at age fourteen a school which abroad received children at nine. We did not shorten the elementary school. We advanced the age of admission to the secondary school.

Meanwhile, although it has been becoming ever more evident for the last twenty-five or thirty years that the secondary school in America is to become a definite part of the education of all the children, the elementary school has remained an eight-year school. If those students are right who trace the origin of our elementary school to Prussian influences, then it would seem that because in Prussia a century or more ago it was decided that the children of the masses should not be apprenticed to a trade prior to approximately age fourteen, that being about the age that children were confirmed or admitted to their first communion, not because it has ever been theoretically determined that eight years is the proper length of time for the first phase of education, we in America maintain an eight-year school: because in Prussia a century or more ago it was not considered necessary to give the children of the masses the opportunity to acquire a knowledge of foreign languages or of higher mathematics, or of any other of the so-called secondary subjects, we in America to-day continue to maintain our elementary school on a rudimentary and vernacular basis; because puberty among primitive peoples coincided with the end of childhood and the beginning of adulthood, we in America to-day maintain eight-year schools.

This defect becomes more glaring when we consider that in Prussia, cruel though the basis of selection was, the children intended for higher education began their

secondary studies in the ninth year; while here, where it is hoped that all children capable of it may follow secondary studies, none of them are ordinarily permitted to begin their work prior to age fourteen.

One of the most potent factors tending to hold the American school system and its divisions in a grip of rigid immutability, has been our double system of teacher training. In their efforts to recruit teaching forces for the elementary schools, the early schoolmen established training schools—our normal schools—institutions where training was given in methods; where just enough was taught to provide for the immediate need of securing teachers for the schools. On the other hand, teachers for the secondary schools have naturally been recruited from the colleges; and so the double system took root. A vicious circle was established. The normal school, originally a most useful institution, has by the very fact of its growth and development, at the same time that it has always limited its functions to the training of elementary-school teachers, fastened the rudimentary inevitableness of the elementary school upon the American system; for the teachers trained for that school have ordinarily not been equipped to enrich its curriculum by the introduction of secondary-school subjects in the earlier years.

"The American public-school system now stands, after three centuries of growth, complete in form only. Its three divisions—elementary, secondary, and that embracing higher education—are joined together, end to end, forming a lineal whole"; . . . but "the whole which the fusing process of recent years has given us is complete in form only. In organic relation, in sharpness of

province, and in distinctiveness of function, these divisions are not yet satisfactorily articulated.”¹

“The practice of segregating children of the same age and of the same attainments into ‘grades’ or ‘years’ and grouping together the first eight to form the elementary division had its beginning with us in the third and fourth decades of the nineteenth century. In its essential features the plan was borrowed from Germany, where . . . it had been evolved during three centuries of educational discussion and practice.”¹

“An examination of the school codes of the German states will show that, in almost every case, the law provided that the child should enter school in his sixth year and remain in attendance, if a Catholic, until time for his first communion, or, if evangelical in his church affiliations, to the time of confirmation, the two rites usually occurring at the same age—namely, in the fourteenth year.”²

The proposed solution.—In view of the foregoing it must be clear that the time has come to examine on theoretical grounds, and with as little attention as possible to historic and traditional legacies, the status and function of the elementary school. Why does this institution exist? What precisely are the objectives which it is expected to attain? What are the means by which

¹ F. F. Bunker, “Reorganization of the Public School System.” U.S. Bureau of Education Bulletin, 1916, No. 8, pp. 1, 19, 37.

² Fairness to the reader requires that his attention be called to the fact that the Prussian origin of the eight-year graded elementary school is not universally accepted. See E. P. Cubberley, *Public Education in the United States*. (Houghton Mifflin, 1919.) For a complete and detailed study of the subject see F. D. McClusky, “Introduction of Grading into the Public Schools of New England,” *the Elementary School Journal*, Sept. and Oct., 1920.

these objectives are to be attained? If its present organization and methods are not well calculated to the attainment of these objectives, what are the changes necessary?

Although it is clear that on a purely theoretical basis as little attention as possible should be given to established organization and method whose only reason for being is historical or traditional, the fact must, nevertheless, be faced that the actual putting of theory into practice must take place while the institution is continuing to function, and as far as possible with the means at hand. Were it considered necessary on a purely theoretical basis to establish in America the European system of the three-year rudimentary school and a nine-year secondary school, the actual existing facts would make such a reform impossible. Teachers of secondary-school subjects would not be available in sufficient numbers. If we are to apply theory as rapidly as may be to the actual practice of existing schools, only such suggestions ought to be considered as can be put into effect within a reasonable period of time, and with the means now at hand.

It is agreed on all sides that the work which the elementary school now does can be efficiently accomplished in six years. From that point of view the elementary school might be reduced to that length of time. Age twelve would seem an ideal point for making the change from uniform to differentiated education. American education must be fundamentally democratic. On the basis of our social outlook we must have a single system and expose all of our children to like treatment. Selection for secondary education ought to be made on the basis of capacity alone. For this purpose it seems to be wise to hold children together for six years. Age twelve

is not too late, and an earlier age might be too early to begin differentiation in the educative process on the basis of intelligence, interests, and special capacities. The first six years of the child's life may well be devoted to the acquisition of those general skills that underlie and are common to all of the activities of modern civilization, skills which are necessary to the child regardless of his choice in the matter of further schooling. It is quite probable that for the average child this period is not too long a time. Furthermore, for this length of time we have a well equipped teaching body.

That this is probably the consensus of opinion of American thinkers in education is evidenced by the following suggestion quoted from the Commission on the Reorganization of Secondary Education, appointed by the National Education Association: "We, therefore, recommend a reorganization of the school system whereby the first six years shall be devoted to elementary education designed to meet the needs of pupils of approximately six to twelve years of age."³

Within this six-year period the work may well be left non-specialized and non-differentiated so far as concerns the curriculum. The object of the school may well be to give the child a "command of fundamental processes" as well as so much of the other objectives of education named by the Commission as are applicable to this age-group, namely: "health, worthy home membership, citizenship, worthy use of leisure, ethical character."⁴ Under this proposal, and particularly in view of the suggestion regarding over-age children to be noted later, vocational

³ U.S. Bureau of Education Bulletin, 1918, No. 35, p. 18.

⁴ *Ibid.*, p. 10.

education is definitely barred from the elementary school.

In addition to the advantages of the six-year period, the new elementary school takes on certain other characteristics as a result of the foregoing discussion which should be noted:

(1) The new elementary school should be quite deliberately incomplete from the point of view of the child's education, in view of the constant tendency to lengthen the compulsory-school period, and in view of the deliberate shortening of the elementary-school period. It should be clear that the new elementary school is not complete in itself. It is merely the first phase of the child's education, having as its principal object the preparation of the child for the next and more differentiated stage. All overlapping on the theory that the child will not go further may now be eradicated, and it should be made clear that as regards the vast mass of the population the elementary school does not provide a finished equipment.

"An extended education for every boy and girl," to quote further from the Commission, "is essential to the welfare and even to the existence of democratic society. . . . Education should be so reorganized that every normal boy and girl will be encouraged to remain in school to the age of eighteen on full time if possible, otherwise on part time."

In order to relieve the elementary school of the need of any differentiated work, and yet to provide for their type, the Commission quite abandons the traditional idea of the secondary school as a caste institution, and deliberately takes the view of this school as an instrumentality for the training of youth, when it recommends:

"That secondary schools admit and provide suitable

instruction for all pupils who are in any respect so mature that they would derive more benefit from the secondary school than from the elementary school."

(2) Another important characteristic of the new elementary school is the homogeneity of its pupil group. The early adolescent is removed from this group. The over-age child who cannot master the work of the school in approximately six years is removed for the purpose of differentiation to the secondary school upon the recommendation of the Commission. From a psychological as well as from a social point of view, the group is more homogeneous, and therefore, easier to work with. It may be worth noting incidentally that the removal of the early adolescent and the over-age child simplifies the problem of discipline.

Advantages of the six-year elementary school.—The new elementary school whose character and function is on theoretical grounds agreed upon by practically all American thinkers in education, has these characteristics and advantages:

(1) It is the school which establishes the first contact with the child so far as concerns his formal education.

(2) It is a school which, as far as curriculum objectives are concerned, is not specialized. It does not differentiate between children on the basis of general goals.⁵

(3) It is a six-year school, whose definite aim is to prepare the child for his second period of training, a period to be characterized by differentiation.

(4) It is a school which deals with a pupil group that is as homogeneous as can be arranged from the point of

⁵ For a discussion of differentiation on other bases, see Chapter XIV.

view of maturity, but not from the point of view of native endowment. In view of the non-specialized character of its goals, and of the desirability of holding all children up to approximately age twelve, so that rate of progress cannot be used as a means of differentiation, the school faces the problem of adjusting itself to the differences in native capacity.⁶

(5) The school retains its purely elementary character. It is a rudimentary and vernacular school, giving the same opportunity to all the children of the community, and enabling every educable child to take advantage of the provision of secondary and higher education.

More general by-product advantages involved in the proposed reorganization.—The proposed reorganization has three important advantages as regards the general organization of American schools that should not be overlooked:

(1) By decreasing the number of years and by taking care of the demand for earlier specialization and differentiation in another school, the present teacher-training agencies will be automatically retained and made more useful than ever. This change need not disturb the present method of normal-school training for elementary-school teachers. These training institutions will undoubtedly continue improving their curricula and procedure. No demand need be made on them to introduce secondary-school subjects.⁷

⁶ See Chapter XIV.

⁷ This situation would obviously assume a different aspect if these teacher-training agencies should, as seems not unlikely, enter the college and university field and claim as their own the entire business of teacher-training.

(2) The removal from the elementary school of children between twelve and fourteen years of age will tend to strengthen the smaller high schools by increasing their attendance. It will automatically tend to improve the resources and character of these institutions; it will help in the consolidation and formation of high-school districts.

(3) The small ungraded school of one and two teachers must inevitably continue in America for many years in spite of every effort toward consolidation. The removal of children from age twelve to fourteen from this school, making it a six- instead of an eight-grade school, will undoubtedly tend in the direction of simplifying this complicated problem and of improving the efficiency of this unit in American educational organization.

Results demanded for time saved.—A fact which belongs to the secondary rather than the elementary school field may be noted in passing. If the elementary school does its work as it can be done in six years rather than eight; if, as is evident on this reorganization, it releases two years of the life of the child, it will be incumbent upon the secondary school system to show what that system does with these two years. In other words, it will be necessary for the secondary school either to shorten its period, or to send its pupils to college prepared to do more advanced work than at present.

This point of view has been actively in the mind of American educators ever since President Eliot of Harvard pointed out some thirty years ago the need of conserving time in the education of American youth. This is a particularly important consideration for the children destined for higher education. The European student, after twelve years of schooling, enters on real university work of a

specific professional character. The American student, under the hitherto established system, if he avails himself of all the facilities for general education, enters on his studies four years later. It is true that in many instances professional work has been and is being done during all or part of the college period. This has, however, hitherto not been regarded as desirable. The proposed reorganization of American education as now discussed, while partially demanded because of the waste of two years which is charged to the old elementary school, ordinarily *makes no provision to save any of this time*. The child's career still winds up after twelve years of schooling, with readiness to enter college for still more general education at age eighteen, when the European student enters on specific professional work of real university character.

The saving of time is not merely a technical school question. It is a practical social problem. The young man who, at age twenty-two, still faces four years of professional preparation and some years of probable apprenticeship, is investing too large a proportion of life to preparation. From his personal point of view, as well as the social point of view which demands dividends of production for investment in support during the economic leisure of training, some time must inevitably be saved.

Summary

We have seen that the American elementary school is, typically, the first phase of formal education, of eight years' duration, offering to all alike a single curriculum, which is rudimentary and vernacular, almost never introducing the higher or so-called secondary subjects. This

school which, because of the recency of the development of the high school as a democratic institution for the general education of youth, has a certain tendency to consider itself as, and therefore organize its work for, the only and final unit of education, deals with a psychologically non-homogeneous group. Its teaching staff is composed of a group largely trained to serve only in the elementary school—a group to whom advancement into the secondary school is ordinarily not possible.

This school is being subjected to a series of charges: the claim being that it is wasteful of the pupil's time, consuming eight years for work that might be done in six. This use of eight years, holding the child to age fourteen, means that many children leave school because of lack of interest, that those who go on to high school do so at a point in their general development not well calculated to abrupt changes, that curriculum differentiation is deferred to too late a period, and that there is a great deal of overlapping between the two schools.

The causes for this state of affairs are historical. It is asserted that we borrowed an elementary school calculated to furnish complete education to the masses in a country where the general population were deliberately barred from the higher schools. The reason for our establishment of this institution was not lack of democracy, but the fact that it was not easy to foresee the development of the American high school. We gave the elementary school more permanence and rigidity, and less capacity for development than might have been desirable, by the development of a double system of teacher-training, one for the elementary and one for the high school.

The solution of this problem centers about the proposal

to establish a six-year school. This school would effect a saving of time, create a homogeneous group, place the change of schools at a more favorable time, and provide for earlier differentiation. This school would be deliberately incomplete, the first phase of education, and would fit well into the present American teacher-training facilities.

Incidentally, this reorganization will tend to strengthen the weaker high schools by adding to the number of their pupils and, consequently, their resources. Conversely, it will diminish the disadvantages of the ungraded, single-teacher rural school by lessening the classes and numbers.

As a consequence of this reorganization, demand may properly be made on the rest of the system to show results for the time saved. Students should eventually finish their general education two years earlier than at present.

Problems

1. The question of the proper age for beginning school work is, in the foregoing chapters as elsewhere in educational literature, assumed to be six. The means of determining this age, the factors involved, the development prerequisite for school work, are a worth-while problem for discussion. Where does the home stop and the school begin—and why?
2. Is institutional training before six feasible? Is the kindergarten, and perhaps the nursery, a proper part of formal education—the first school?
3. What is the status of preelementary education abroad?
4. What are ideal relations between kindergarten and

school? What does the former accomplish in preparation for the latter?

5. Make an independent examination of the history of the American elementary school and present conclusions in the controverted matter of its origin.

6. What is your opinion of the six-year school as a solution of current problems? Why are facts so far behind theory—why is the idea so slow in establishing itself? What is the status in your immediate vicinity?

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PART II

**EXTERNAL RELATIONS OF THE
SCHOOL INSTITUTION**

CHAPTER III

THE SCHOOL INSTITUTION AND THE GENERAL COMMUNITY

The State and education.—The right of the government to control, oversee, and provide for the education of its citizens is now so well established everywhere as to be beyond dispute. Its right to force individuals to send their children to school, to tax the community as a whole in order to provide such schooling, to establish standards, and otherwise to safeguard the training of youth within its borders, has been slowly but firmly established.

This right in America is the right of the individual States. The power to provide for and control the education of the young has in the United States never been delegated to the Federal government. It is not of such a character as to make such delegation necessary. The tendency in America has always been to guard jealously the powers of the individual State and to limit such delegation of powers to those needed for safeguarding the welfare of the nation at large. The delegation of such powers to the Federal government seems so entirely contrary to the genius of our institutions, that its discussion would be futile. Within that period of the future that can be of practical interest in any discussion, it may be said that the national government will never control, supervise, and conduct public education.

Up to the present time, the State has been satisfied when it could be shown that the child was receiving educational opportunities. There has been no insistence, in other words, that this education be secured in institutions either maintained by the State, or if privately maintained, then supervised by the State.

There are governments which conceive of their jurisdiction as much more extensive. "Throughout Continental Western Europe the state has assumed control of practically all forms of educational activity. No school may be established, no person may teach, no subject may be taught, unless the permission of the state is explicitly given. Every school established belongs to a certain type, and a pupil's position in the school is regarded as indicating approximately his attainments and degree of general efficiency. Similarly, every teacher belongs to a certain species, determined by his diplomas and experience, and can change his status only by modes of procedure recognized by the state."¹

A movement from complete liberty of instruction toward some form of supervision is evident in America, the point in our States being not so much an interest in meticulous uniformity of curriculum and procedure as a feeling that schools conducted by foreign racial groups in foreign languages, having as their primary objects the preservation of foreign traditions and loyalties rather than general education should, if permitted to exist, come under some form of State supervision in the interest of the great common welfare.

Local unit control.—Although possessed of the un-

¹ W. G. Sleight, *The Organization and Curricula of Schools*, p. 1. (Edward Arnold, London, 1920.)

limited power so to do, it is an interesting and noteworthy fact that the American State in no case exercises the prerogative of directly controlling the education of the children of the State. The State Board of Education is the one body in every commonwealth of the Union which ordinarily has no direct control over elementary or secondary schools. The office of the State Superintendent or Commissioner of Education "as originally created in the older States was chiefly clerical and statistical,"² and to-day, quite as much as ever before, depends for its usefulness on the power of the incumbent to exercise unofficial influence with local communities. The right of the State to conduct schools is in America everywhere delegated to local communities. Unlike countries like France which have well knit, well thought out, well equalized state school systems calculated to care for the education of children regardless of geographic location or wealth of the local community, we conduct our schools by means of local unit control. This system, as is well known, makes for shocking inequalities of support and efficiency of education.

"A great deal has been written and said complimentary to the public schools of the United States, concerning their high standing and progressiveness, as indicated by the constant adoption of new and better methods of teaching, and of better buildings and equipment. A general impression has been created that there exists an American school system which is efficient and nation-wide, with equal educational opportunities in all parts of the country. The impression is erroneous. . . . Opportunities

² A Manual of Educational Legislation, U.S. Bureau of Education Bulletin, 1919, No. 4, p. 8.

for education in most of the rural sections of the United States are exceedingly meager, in comparison with the opportunities offered in cities.”³

Speaking on the same subject, a competent German observer whose opinion is reprinted by the Federal Bureau of Education⁴ remarks: “Thus we see in the United States to-day the sharpest contrasts between school systems that are incredibly bad and others of the highest possible type that would do credit to the finest civilized nations of the globe.”

“There are, according to estimates made by the United States Bureau of Education, approximately 210,000 one-teacher rural schools in the United States.”⁵ In California alone, as estimated by a recent legislative commission, there are 2366 one-teacher rural schools.⁶ “The number of children (214,928)” living in districts with one-teacher schools in Kansas is “considerably more than the total population of the entire State of Wyoming and nearly three times that of Nevada.”⁷

This system of local unit control is not the result of deliberate thinking on the problem of the organization of public education. It is a heritage of history. It was established at a time when it was a useful, in fact the only feasible method of organizing the community for the purpose of education. Its roots reach back to the very beginnings of settlement in America. Its establish-

³A. C. Monahan, “The Status of Rural Education in the United States.” U.S. Bureau of Education Bulletin, 1913, No. 8, p. 9.

⁴See “A Comparison of Public Education in Germany and in the United States.” U.S. Bureau of Education Bulletin, 1913, No. 24, p. 6.

⁵“A Manual of Educational Legislation.” U.S. Bureau of Education Bulletin, 1919, No. 4, p. 8.

⁶See Report of the Special Legislative Committee on Education, 1920.

⁷Bureau of Education, Rural School Circular No. 7.

ment almost contemporaneously with the church by the early Massachusetts settlers was a manifestation of the nobility of their aspirations. The local school was organized and supported almost before the larger unit of colonial government came into existence.

State-wide standards.—In the course of the years it became ever more apparent that absolute local autonomy in the matter of schools on the part of minute geographical divisions of the commonwealths was intolerable. But it has not been the American system to revamp institutions, to abolish existing methods, and to create totally new ones. Rather has the State undertaken to reach its goal of improving educational opportunities for children by means of an increasing number of general State regulations setting up minimum requirements to be attained by every unit of control. A vast amount of good has in this way been accomplished everywhere in America. It is in this way that we have attained such important measures as a compulsory period of schooling for every child; a minimum number of months of instruction every year; a minimum equipment on the part of teachers without which they may not be engaged, as controlled by laws of certification; an improvement in courses of study and in character of texts to be used, in standards for school equipment, and many provisions of a similar character.

Such provisions limit the rights of local communities. To the extent of these provisions these communities are less free in the conduct of their schools to provide poorer facilities. But the State has the ultimate power to regulate education, and has chosen to use this method for elevating the standards. In addition to this legislation,

the State has endeavored by unofficial methods to induce communities to improve standards. And yet educational conditions in America are markedly poor for a country so wealthy as ours.

"In 1918-19 approximately a fourth of all the children of the United States were being taught by teachers who had less than a high-school education, and who had very little or no professional training. We have been satisfied in the United States with a lower requirement and less training for the teachers in our schools than prevails in any other great nation."⁸

Enlarging the unit of control.—One great remedy has been suggested, and a vast amount of agitation in its favor has been carried on. This remedy is consolidation. The local units themselves have been urged to combine their resources, so that by the greater wealth and the larger number of children represented by larger geographic units, more adequate education may be provided—education more nearly approximating that furnished by the cities, which in America have almost exclusively been responsible for educational advance.

"Three distinct units of (rural) organization are in use at the present time in the United States—the district, the township, and the county."⁹ By means of agitation, permissive legislation, and compulsory legislation we have been going forward in the direction of consolidation in

⁸ Strayer and Engelhardt, "The Classroom Teacher," p. 18. (American Book Co., 1920.) But note that there are two types of inequality. One is sectional as between States or groups of States. As regards this, Federal aid is suggested. The other type of inequality, that between rural and urban schools within a given State, is here under discussion.

⁹ U.S. Bureau of Education Bulletin, 1919, No. 4, p. 13.

a decidedly uneven manner so that to-day the character of the local community controlling education ranges from a one-teacher district school through the voluntarily consolidated union consisting of several former districts, the so-called semi-county method, to the actual abolition of districts and the recognition of the county as the sole unit for school administration.

"Experience has taught that for the greatest administrative efficiency in education the unit of administration should conform geographically to the unit used for civil administration."¹⁰ This statement is misleading. The difficulty with the district is not that it forms a unit within the county, so that conformity to "the unit used for civil administration" would mean anything *per se*. The difficulty is that small numbers and limited wealth mean limited educational opportunity. The county was suggested because it represented geographically the next larger unit, and hence a source of greater pooled resources and more children for better schools. The question must now be faced whether, the country over, the rural county is a sufficiently wealthy and populated unit to provide facilities for the best in modern education. The State, after all, is the ultimate "unit used for civil administration."

The county unit of educational administration has been the utmost asked for by leaders in the consolidation movement and the advantages rightly claimed for this unit in comparison with the smaller unit are numerous. At least one-quarter of the States of the Union are now organized with the county as the definite and exclusive unit of local control. A large number of others are

¹⁰ U.S. Bureau of Education Bulletin, 1919, No. 4, p. 13.

organized on the basis of the so-called semi-county system, and the movement in this direction is constantly growing in impetus.

For the purpose of our discussion it may be assumed that the county unit system is altogether an advance, and that its ultimate establishment throughout the Union is quite probable. The advantages of the larger unit have frequently been pointed out in educational discussion. Generally speaking, it furnishes the means that have been at hand in the cities for the improvement of education, namely: the opportunity to engage professional supervision; to enrich the curriculum because of the enlargement of the schools; to classify children in grades and provide a teacher for each grade; and to provide many of the opportunities not procurable by the insignificant resources of the isolated district.

The county unit inadequate as a final solution.—A more important question to face is whether or not the county is suitable as a final unit of school control. While the rural schools have by consolidation, been getting into step with the city systems in supervision, grading, and special subjects of instruction such as music, these latter have been developing new avenues of educational service for which even county systems must immediately find themselves inadequate. As we shall note in later chapters, provision for the blind, the deaf, the crippled, the tubercular, the mentally defective, the highly endowed, implies large population and adequate wealth. While all these classes must be cared for if we are really to provide equality of opportunity for all, the number of children per thousand requiring this care is so small and the cost of maintaining equipment and furnishing instruc-

tion is so high, that it is quite safe to say that the average rural county can no more undertake the education of these special classes than the one-teacher school can become a graded institution. Indeed, for these purposes, the smaller cities are also becoming inadequate. A larger unit of wealth and population is necessary.

But the need for special forms of education is not the only reason for demanding a larger unit. We cannot secure a well trained teaching and administrative personnel without it. Ultimately the quality of any school system must depend not on the amount of wealth available, or on any of the advantages that have heretofore been enumerated in favor of consolidation and of the county unit of control, but on the character, training, and outlook of the teaching body. The American system of public-school control fails to furnish to the prospective teacher a career that may be visualized in advance as progress step by step from an early beginning to ever higher advancement on the basis of experience and the accomplishment of a high quality of service.

The time has come to call attention to the fact that in America every change of post means a change of job. Generally speaking, teachers are not promoted from position to position. They seek to better themselves by resigning in one place and applying elsewhere. Except in very large units such as the cities represent, and except for people who desire to stay within these units, a teacher must always carry about with her her bundle of credentials, and impress prospective new employers with her desirability. She does not advance by promotion; her career is not continuous.

The disadvantages of the system are obvious enough.

Standards of efficiency are not always the same. The basis of employment is not always simple professional efficiency. Various employers have varying points of view regarding the meaning of professional efficiency. The higher we advance in the hierarchy of professional service, from teacher to principal, from principal to supervisor, from supervisor to the administrator of a larger unit, the more glaring becomes the fact that simple efficiency and professional ability are not the only bases for appointment and advancement. On account of the fact that the ultimate control of schools is always and everywhere in the hands of lay boards managing a vast number of local units, it too frequently seems necessary for the aspirant for advancement to cultivate arts other than those useful for the pursuit of his profession.

Local unit control, even when that control shall have finally attained to county-wide districts for purposes of rural education, is the bane of American education. So long as almost every change of work must mean a change of job and depend on the ability to impress a new employer, so long will American education suffer from lack of true professional character. Organization for purposes of business is frequently referred to in American educational discussion. For purposes of comparison it is almost invariably assumed that schools can hardly do better than to model their organization on the plans followed by the great commercial corporations. These large corporations seek to reward merit. They seek to develop employees for ever greater responsibility; they are quick to detect ability and to promote for efficiency. A person entering their service finds himself at the beginning of a career.

The State as the unit of control.—For purposes of improving the educational personnel, we must have in

America State-maintained systems of schools. We must have State-wide school systems supervised by well trained experts under whose guidance it will be possible for a teacher beginning where her responsibilities are small to go forward as far as she may be capable, to ever more important posts by promotion, and not by change of job. American schools will never attract the most capable men and women until they offer a career in the service of the State and in the cause of education—until they organize a method of detecting, fostering, and rewarding ability.

But this constant change of employer is not the only evil. The hierachal grading of types of work, making some kinds more important than other kinds, no matter where and by whom performed, is an equally vicious arrangement that must be eradicated. Not only is our present method of educational control defective in that almost every change of post means a change of job, but it is also defective in that schools are organized on such a hierachal basis that in order to advance, good teachers are endlessly forced to become poor administrators. It is assumed in our system that a principal is more worthy of reward than a teacher, and a superintendent more so than a principal. Ambitious persons beginning as teachers who love their work, are perforce compelled to look toward administration, since that is considered the only basis of real advancement in American schools.

A well organized system of State schools would offer a number of parallel careers of comparatively equal importance. It would be possible to enter a field, or to change from field to field early in one's career in public education, either as a teacher or as an administrator. It would be possible for supervising authorities to carry a teacher from the least responsibility to ever increasing

responsibility in her own field; from teaching an ungraded school in an isolated district to the responsibility of a headship in one field of instruction, in a large city; or to promote a principal of a five- or six-teacher school continuously until he becomes the superintendent of schools in an important city.

The conduct of schools to-day involves at least three parallel and not necessarily related types of service, namely: classroom teaching, school-administration and constructive educational thinking charged with curriculum construction, teacher-training, and devising of new methods. Our present method of school control involves the erroneous assumption that a single person, administering a school system, will necessarily be as good an administrator of numerous business details from the purchasing of coal to the construction of a school building as he will be a constructive educational thinker and leader. The present system of control seems to involve the theory that a good classroom teacher will necessarily make a good administrator, and therefore regards appointment to administrative duties as the only means of rewarding excellent teaching service. We have become saddled with a totally illogical and vicious hierachal method of school organization, which operates unjustly to the individual teacher, and attracts to administration a certain proportion of persons who would make better classroom teachers, and another proportion of persons whose principal qualities consist of ability unrelated to the excellent conduct of schools.

A well organized system of State schools would have at least three grand divisions, namely: a division of classroom teaching, a division of school administration, and a

division of constructive educational thinking including teacher-training. This State system, using State resources, would organize schools in accordance with State-wide plans varying with varying local conditions and needs. Persons entering the service of the State would apply for appointment and employment just once; after that they would be in a position to look forward uninterrupted to a career in the service of education until they chose to leave one commonwealth and enter the service of another. The number of possible employers would at least be limited to forty-eight. Teachers would be moved on the basis of ability from one post to another, and it would be quite possible that certain teaching positions involving great responsibility and indicating fine ability would be better paid than some administrative posts.

Persons in the administrative service likewise would be moved from one point of responsibility to another. Those responsible for the administration of education in the larger cities would have demonstrated their ability in smaller ones. Constructive educational thinking would include supervision of instruction, the teacher-training agencies of the State, and a group responsible for the determination of educational objectives as well as educational experimentation. It need hardly be added that a hard and fast separation, making transfer from one division to another impossible, is not here advocated. It is also recognized, of course, that concentration of large power in the hands of a few individuals has the limitation of its virtues. There is hardly anything human that is perfect. The suggestion ought not to be measured against absolute perfection, so much as against present conditions.

These conditions are that local unit control with a vast

number of lay trustees, the great amount of variation involved in this system of organization, the impossibility of introducing State-wide educational reforms even in the most favored States, the need facing the young teacher that she change her job and apply to new employers every time she wishes to change her location, the need of impressing new employers by means other than those involved in professional capacity, the inability of untrained laymen to detect good work, and their inability to reward it if they did—these things and many others make for the retardation and stifling of American Education.

There is at the present time in America no movement for State control of schools such as is here advocated. Yet, since State control is inherent in the logic of things because it will inevitably make for improvement, the advantages involved in all likelihood outweighing the disadvantages, it would not seem unreasonable to predict that leading American commonwealths will be actively considering genuine State-wide organization for educational purposes, while some of the most backward are still considering the advisability of abolishing the district system. Institutions change slowly. Maryland adopted the county unit of school control in 1865, while Missouri adopted the same system in 1921,¹¹ and numbers of States in the American Union still possess the district system, pure and unalloyed.

Summary

The object of this chapter has been to present the elementary school as one institution in, and its relation

¹¹ Since repealed by referendum.

to, the general organized community. We have seen that:

(1) The power to control education rests with the States, but the actual maintenance and control are delegated to local units organized for this specific purpose. The State, though not maintaining the local schools tends, by State-wide legislation requiring uniformity, to maintain certain minimum standards.

(2) There are two causes for the existence of inequality of educational opportunity in America: (1) that between States or groups of States, grounded in many causes, such as possession of wealth and variation in point of view;¹² and (2) that between rural and city schools within most States, caused by the inequality of resources as between the small one-teacher district and the wealthier, more densely populated city.

(3) The remedy suggested heretofore has been the consolidation of districts, the ultimate hope being for compulsory consolidation within counties, making this unit of civil administration co-extensive with that for education.

(4) The claim made in this chapter is that the county has itself become too small a unit for the maintenance of some types of modern educational service which deal with children who constitute so small a proportion in the population at large, and whose instruction is so expensive, that county resources would ordinarily be inadequate to provide them.

(5) The suggestion is made that the State itself organize and maintain a State-wide system of schools for general public education, not only because of the increas-

¹² See Chapter VII.

ing difficulty of maintaining high standards on the part of small communities, but for two additional reasons: (1) State-wide organization would provide one employer, and hence the possibility of promotion and a career in place of the present system of change of job with every change of work. (2) State-wide educational organization would make possible a more specialized and scientific type of organization consisting of at least three co-ordinate kinds of work: teaching; administration; supervision, experimentation, and teacher-training.

Problems

1. Centralized control of education for an entire country as exemplified in France, for example, has many grave disadvantages. It is important to determine whether these disadvantages which would probably inhere in a State system in America, would outweigh the possible advantages.

2. We have in continental America no example of the type of organization recommended in the chapter, but the preparation of the skeleton for such an organization would furnish an interesting problem. The school system of Hawaii represents an interesting example of non-local control under the American flag.

3. The problem of the control of non-governmental educational agencies has merely been touched on in the text. How far the State should interest itself beyond assurance that every child is offered educational opportunities, and undertake varying types and degrees of supervision, represents an important question of policy. Recent legislation in the State of Oregon definitely prohibiting the maintenance of non-public schools for young

children represents an extreme view of State power and policy that merits consideration.

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CHAPTER IV

THE SCHOOL INSTITUTION AND THE IMMEDIATE COMMUNITY

The demand that the school broaden in scope.—The American school lives and functions in a democracy. Our schools are training the future citizens of a democracy. One of the principal characteristics of the American school system is its democratic control. It is the business of the school to be responsive to the demands of the community which it serves. Under many names such as school extension, social activities, Americanization, and adult education, the community is crowding in on the school institution as traditionally organized, and demanding that it broaden its scope and function.

As usual with vital institutions, actual activities in these directions are preceding theory, and the school staff and equipment are engaging in a bewildering number of occupations totally unrelated to the school as that institution has heretofore been understood. Evening school, vacation school, after-school playground activities, lectures and entertainments for adults, a multitudinous number of activities passing under the name of social and community center, day nurseries, forums, Americanization work and instruction in citizenship, exhibitions, community fairs and institutes, choral societies, Junior Red Cross, thrift and savings enterprises, Boy Scouts,

Camp Fire Girls, home gardening projects—these are a very few, indeed, of the vast number of activities now being carried on more or less under the supervision of the school authorities.

It is not the object of this chapter to enumerate these activities in detail. In view of the accessibility of information regarding the subject, as indicated in the bibliography at the end of the chapter, such enumeration and description here would be largely a waste of space.¹ Rather is it the object of the present chapter to undertake an examination of the movement as a whole for the purpose of determining whether or not it is properly a function of the school, and if so, upon what principles school participation in these activities ought to be based.

As a point of departure for this discussion one may stop before this bewildering variety of activities and inquire, "What is a school?" Even if the entire scope and significance of that institution is about to be changed, if society is about to reshape this great social agency to its own larger needs, one may at least ask: "What have heretofore been the characteristics of a school?" What do other societies understand by the term 'school'?" The answer is naturally obvious. Publicly supported education has been marked, so far as concerns function, by these four characteristics: It has been an organized, publicly supported institution maintained for the (1) instruction of (2) children (3) during certain well defined hours and (4) within a fairly well defined scope—in America, for example, excluding religious instruction. If this fairly well defined scope is about to be enlarged,

¹For a review of the extent of this movement see U.S. Bureau of Education Bulletin, 1917, No. 30: School Extension Statistics.

we must know (1) what is being demanded, (2) why the demand is being made, and (3) how far, on what principles, and with what additional equipment, these demands should and can be met.

What is being demanded.—“No school system,” says one writer, “realizes to the full its capacity for community service so long as its activities are restricted to the education of children for five or six hours a day, and the amount of money invested in the plant makes such a limited use uneconomical in every sense of the term.”²

The fundamental idea here seems to be rather the more extensive use of the physical plant than the broadening of the function of the institution itself. Another writer, however, avers that “the school’s function is rapidly broadening. School plants are now in various places centers of both mental training and bodily training, and for adults as well as children. But also they are becoming the place where neighbors vote, discuss common affairs, view beautiful pictures, hear music, dance, and play. As an institution through which society discharges certain functions, it is gradually changing its character, and while the dynamic forces are social needs, the reason why the school has been selected as the place for meeting them, is to be found in its central relation to those portions of the population which are known as neighborhoods.”³

Again the emphasis seems to be rather on plant and geographic location than upon the school institution itself. Were it merely a question of the community use of its school equipment at such times as it is not actually re-

²D. C. Bliss, *Methods and Standards for Local School Surveys*, p. 113. (Heath, 1918.)

³C. A. Perry, *The School as a Factor in Neighborhood Development*, p. 2. (Russell Sage Foundation, 1914.)

quired for its primary purpose, the education of children, there would be little to discuss. It is true that there are many weeks of the year, and many hours of the day when the school plant is not in use in the course of carrying on its principal activity, and it is patently right that the community make use of it if it so desires. The school extension movement began in that way, and the opinion in favor of such use has been practically unanimous; but the movement has gone farther and deeper. It is now quite evidently an effort to involve the very institution itself. The right of the school to confine itself to the traditional business of educating children is being challenged. A demand is being made that it broaden the concept of its social function, and take up to a larger degree the business of community leadership and community welfare.

In Cleveland, for example, "the school system performs these services:

Bathes bodies;	Furnishes food;
Discovers physical defects;	Develops physiques;
Diagnoses ailments;	Supervises play;
Treats diseases;	Conducts kindergartens;
Administers medicaments;	Directs work." ⁴

"If a child cannot hear the teacher, its ears must be treated. If it cannot see the blackboard, its eyes must be fitted with glasses. If it is likely to die from tuberculosis during or after receiving its schooling, it must be taught in an open-air room. If its brain does not function well because of hunger, it must be fed"⁵—all this by the school, not the parent.

⁴C. A. Perry, Educational Extension, p. 22. (Cleveland Education Survey, 1916.)

⁵*Ibid.*, p. 33.

Pressure is coming from many directions, loudly and incessantly. Behind a spontaneous and insistent demand of this sort there must be fundamental reasons. When the school is called upon to take up to an ever greater degree the duty of parent and friend, guardian, guide and counsellor; to undertake the supervision of recreation, cultural assimilation, national integration, and the provision of neighborhood social activities, it is evident that one of two things must be true: Either the community is searching for new types of activities hitherto supervised by no institution, or it is seeking expression in old fields hitherto supervised by old institutions which no longer function. Is the school capable of undertaking new functions? Is it proper that it should undertake to expand to meet them? If so, what adjustment should it look forward to in the future?

Reasons behind the demand for a broader interpretation of the function of the school.—We moderns, and particularly we moderns in the United States of America, are living in a transitional period of the world's history, characterized by an absence of clear-cut institutions and forces tending toward social unification and integration. In the era immediately preceding our own, there were many factors that tended toward a social unification and integration of certain naturally formed local groups. In the Middle Ages these factors were unity of religion, since all belonged to the one inclusive Church; a common political fealty, since all equally owed allegiance to the local feudal lord; a common isolation and mutual interdependence in view of the lack of facilities for, and the dangers involved in, travel as well as the absence of rapid verbal communication with distant communities, and

lack of printed material in the form of newspapers and other periodicals so common in our day; community of race and tradition since people were living in the very spots where their ancestors had lived before them for generations, and in the very presence of the great architectural monuments erected by them; as well as similarity of laws and lore.

Even to-day in communities other than our own, there still are operative certain great unifying factors, particularly those of common national ideals based on community of race and language. Countries like Japan, and France, do not face the need of assimilating groups of startling proportions to their language and cultural ideals. From these points of view at least, they represent unified group life.

But in our country and in this day, the problem of social integration is imposing. The factors tending in directions counter to such integration are many, and no single institution has yet been discovered beyond question best adapted to act as the great unifying medium. A government *per se* can never be used as such a unifying means, for governments are necessarily and in the nature of things impersonal in their operation. They command respect and loyalty, but these may be given in many languages and out of varying motives. In the fields of industry and religion, the possibility of division into small groups seems greater than that of the cohesion of very large masses of the population. Abroad, even to-day, large geographic units are predominantly of similar religious views. Even economically, in rural countries like Russia, or small industrial countries like Switzerland, the business of carrying on the production and distribu-

tion of things does not tend to a sharp division between labor and capital as is the case in America to-day.

Again, the transient character of our population made possible by freedom of movement and the lure of opportunities, the large foreign-language groups, groups which at the same time represent varying cultural backgrounds and tradition, all make against, rather than for cohesion on a national scale.

The school as a possible means of social integration.—Yet such cohesion, unification, and integration, there must ultimately be, and the forces making for such unification for the nation are unconsciously trying out various agencies in the hope of finding one that will function continually and effectively. The real meaning of the school extension movement is that the adaptability of the school as a socializing agency that may be used for this great purpose is being tried out. For such purposes this agency is new, its traditional methods are unadapted and untried; but the attempt to use it must be made.

These forces of nationalization in trying out one agency after another, have evidently not found one that comes as near to satisfying their demands as does the school. The school possesses a plant that is ready for use and can be made continually more adaptable. The school is centrally located. The school is the one agency which as yet is above suspicion on the part of the representatives of any point of view, religious, political, or economic. The school is the only universal institution in America where all may meet without compromise of any sort on the part of any.

Three possible types of school extension.—There are three principal ways in which the school may be used for the purposes under discussion:

(1) The community may use merely the school plant, without demanding any other service whatsoever. As an example of this type of use, note the thirty-six different local activities that were carried on during non-school hours in one of the Cleveland schools:⁶

GROUPS USING SCHOOL ACCOMMODATIONS

Twentieth Ward Improvement Association

East End Chamber of Commerce

East End Neighborhood Club

Women's Suffrage Political League

Municipal School League

Spanish War Veterans

Ladies' Relief Corps

Knights of Pythias Lodge

Public School Association

D. A. R. Clubs

G. A. R. Post

Garment Workers' Union

Warner Civic Association

Normal Alumni

Alumni Club

Sanitation Club

Social Center Club

Teachers' and Mothers' Club

Civic League

Western Reserve Dental Club

Thespian Dramatic Club

South End Choral Society

Mendelssohn Choir

Boys' Glee Club

Boy Scouts

Boy Cadets

Camp Fire Girls

Y. W. C. A.

Mothers' Club

Anti-Fly Campaign

Boys' Chef Club

Patrons' Club

⁶ Educational Extension, p. 83. (Cleveland Education Survey, 1916.)

Social Club
German Club
Latin Club
Syrian Club.

(2) The school plant may be used for the purpose of community activities under a special corps of workers, and is so used in many communities.

(3) The school may be used for purposes of extension with the school staff as the supervising agency.

Use of school plant only.—Referring to the first two types of extension involving use of the plant but not the services of the school staff, to what extent should such use be permitted during non-school hours? Should the authorities undertake to censor the activities and lay down regulations as to the type of activities which may, and the type which may not, be carried on? Should the school undertake to censor the discussions?

If the building is open at all, and it seems agreed that the community should have the privilege of using it, fairness would seem to demand that it be open to all groups for varying purposes without distinction. Assuming that no damage is done and that no activities are carried on calculated to interrupt the use of the plant for the primary purpose of educating children, citizens should be permitted to use the plant freely, each group in its own manner. If the plant is opened at all, it should be open to any organization and for any purpose that does not violate the common conceptions of decency and morality. It does not seem desirable that the school should take sides on any issue, even though the division may be one into a preponderant group on the one hand and a very small one on the other. So long as an activity is not incon-

sistent with the use of the building for its primary purpose, the principle ought to be that a group activity which may be legally carried on anywhere in the community may be permitted on the school premises. The causes for barring the use of the premises should be three: (1) abuse of property; (2) immorality; (3) illegality.

If the opinion noted above is correct—namely, that only that agency can function for social integration in America which is above suspicion on the part of the representatives of any point of view, religious, political, or economic—then the school cannot be partisan. “There are likely to occur now and then discussions which will provoke public criticism. Some people will feel that another class of people is promoting abhorrent doctrines through the use of a commonly owned and supported public building. But so long as the constitutional guarantee of free speech is preserved, people will talk, and if the principles of democracy are sound our institutions have nothing to fear from open, all-round, orderly discussion of all common interests. It is when propaganda is carried on in obscure places, away from the cleansing light of experience and the searching criticism of practical facts, that it may become dangerous and foment strife. The right way of satisfying public interest in controversial questions is to make them the subjects of fair, able, and dignified discussions at the community center, and to supply information upon them by means of lectures and illustrated talks.”⁷

School extension implying use of plant and service of personnel.—A far more perplexing problem than that of

⁷ Educational Extension, pp. 106-107. (Cleveland Education Survey.)

permitting community use of plant and equipment is the demand and tendency, the assumption of the correctness, of the use of the school plant under the supervision, guidance, and leadership of the school staff. In view of the many types of activity, classification into types on some basis represents the only means of approach to a discussion of principles. For our purpose, this third type of school extension can best be considered under two heads, i.e., (a) the school and the child; (b) the school and the adult community.

The school and the child.—Certain phases of the school's interest in the welfare of the child are now so completely established as correct school practice that they can no longer be referred to as extension. The kindergarten, the after-school playground, the nursery, open-air and vacation schools, and school luncheons, are a few of the many examples of activities initiated by private agencies because the need for them existed, and later taken over by the schools. The study and care of incorrigibles, for example, is now established and represented in attendance departments and parental schools. Many phases of the physical welfare of the child, involving health and nutrition, and presupposing medical care and feeding, are also becoming as firmly established as training in reading and writing. These already established phases of extended interest in the child will be dealt with later.⁸

The question here is rather one of enlarging the meaning of nurture so far as the school is concerned and extending school care and interest in the welfare of the children not only by increasing types of care during the

⁸ See Chapters VI, VII, and VIII.

school period, but actually extending the time to what have heretofore been non-school hours and non-school years. For the years preceding school, the kindergarten and, indeed, the nursery school are beginning to function *in loco parentis*; during inter-school periods the vacation school is functioning; and during non-school hours, schools are beginning to provide recreation, social as well as physical, that heretofore seemed to belong in a very special way to the home. It is quite possible that the home, like other hitherto more effective factors, such as religion, community of race and of political allegiance, and the implication of geographic grouping and isolation, is beginning to break down.

What is the duty of the school under these conditions? The answer would seem obvious. The school is committed to the development of childhood, to nurture. As an institution it began by taking over and doing better some of the work of child-training which had theretofore been carried on in the home. It was the incompetence of the home under conditions of growing social complexity, that first made necessary a specialized agency for nurture. No arbitrary limits can or need be established. As rapidly as the home becomes less competent and the school better equipped, and as rapidly as the community which uses the school as an instrumentality makes the demand, so rapidly must the school undertake new phases and reinterpret the meaning of education.

Reasons for decreasing adequacy of the home.— Meanwhile there may be noted in passing some of the reasons for the current and apparently growing tendency of the home to abdicate in favor of the school. It is a commonplace that the home as a factor in the nurture

of children is ever decreasing in efficiency. The reasons for this are numerous, and all of them can hardly be listed. Four main sources may be noted as factors that probably will continue to be responsible for decreasing the efficiency of the home:

(1) The constant increase of scientific information, skill and technique, regarding the care and welfare of children, by its mere accumulation, tends to make the home less competent even where the home itself is not deteriorating. Just as the development of high specialization and perfection of product in spinning, weaving, baking, and canning makes the modern home a less competent means of doing these things, so specialized information and skill in the field of nurture operates toward the same end. In an age of industrial specialization we have slowly adopted new concepts of home; the woman at the spinning wheel is no longer a proper symbol for that institution. Evidently its relation to the child, too, is to be modified.

(2) In modern times many mothers participate in industrial labor outside the home and, by their very absence, they make it a less suitable place for the best and most complete rearing of children.

(3) The proportion of the population residing in cities is constantly increasing; the urban home is becoming constantly smaller, as is the surrounding territory available for child experience. The supervised formal play center is of necessity replacing the hills, fields, roads, and streams that formerly were the environment well meriting the term "home."

(4) The transient character of urban industrial workers and the presence of large sections of recent immigrants whose standards and concepts and ideals are not

completely suited as a medium for the development of future Americans, represent still another phase of the inadequacy of the home.

At the same time that the home is becoming a less competent institution for child nurture, modern science, and the experts and social workers representing the findings of modern science, are bringing ever greater pressure for improving conditions making for child welfare. In the very presence of the decrease of home efficiency, we have an increased demand and pressure for attention to the many details in the care of the child, such as nutrition, care of teeth and eyes.

The inference seems to be clear enough that the time has arrived when the school must enlarge its conception of nurture, and interest itself in the welfare of children, taking for its task more than intellectual development. The school must build up efficiency in the general care of children, and this efficiency must extend beyond physical welfare, and include moral and social development as well. It is becoming more and more important for the school authorities to be well acquainted with the other agencies engaged in protecting children,—the agencies for the relief of poverty, the juvenile court, and other agencies that deal with delinquency, as well as the commercial agencies that provide recreation for children.

All modern life, particularly in our American cities, is tending to burden the school with an ever increasing care of the children, and it is becoming the business of the school to acquaint itself with the problems involved and the best means of their solution.

The school and the adult community.—We come now to the group of extension non-traditional school activities which establish relations between the school and the adult

community. Some of these are initiated by the school for school purposes, namely: the better education of children. Some represent the school's participation in civic affairs, involving teachers, or children, or both. Others, again, represent really definite, concrete extension of scope.

(1) **Activities initiated by the school for school purposes.**—The first type referred to, the activities initiated by the school for school purposes, is best illustrated by the home teacher movement now in process of development in certain American cities. The present practice is to relieve certain particularly well suited teachers from part or all of their teaching duties and sending them to the homes of certain pupils. The objects of this visiting are as yet vague and ill defined. The activities are numerous and varied, centering around the goal of contact, mutual understanding, better coöperation between school and home for the greatest ultimate good of the child.

We are witnessing here the development of a social-service phase of the organized conduct of public education. The school has had contacts with the home before: The attendance officer is no longer a policeman—he may help secure shoes to assist in sending children to school. The nurse has for some time been visiting in a friendly capacity, advising that needed surgical or optical service be secured, or that the character of child-feeding and general hygiene be improved. The visiting teacher comes as a friend with more general, less well-defined purposes, prepared to teach the use of soap or of English verbs. Around her all the scattered social-service tendencies and existing activities will doubtless become organized into a new phase of public education.

Other points of contact, either initiated by the school

or gladly accepted by it, are organizations outside the school whose members are not teachers, and whose primary or partial purpose it is to aid the school for the good of the child. Local mothers' clubs, settlements, social service and relief agencies of every type, particularly those organized specifically for juvenile welfare, are typical of the sources and the kind of help. Between these agencies and the school, the bond should be close. The school should not merely note their existence, but coöperate heartily for the welfare of youth. Notable among these interested but unofficial agencies is the national organization of parent-teachers associations which now has a most imposing country-wide program for aiding the schools.

(2) **The school's participation in civic affairs.**—We must now note the demand that the school participate in civic affairs. This demand may involve children, it may involve teachers particularly, or it may involve both. The principles that should underlie and guide such participation ought to be noted: The request is frequently made for supervised pupil participation in the actual life activities of the community. There is an ever increasing impatience with the view that the school is a place apart by itself. Many agencies representing great social forces local and national in scope, are demanding the privilege of involving the children in actual adult activities—a fact that was so thoroughly demonstrated during the great war as to need no illustration. These social agencies are relying on the school more and more because the children in the school represent the surest means of universal appeal, the easiest means of effectively reaching the largest numbers.

This tendency involves some advantages and some dangers. The primary business of the school is education. In so far as the movements demanding the use of the school and the participation and activities of the children represent material and activities that can be advantageously used in furthering the education of the children without demanding a disproportionate amount of time and energy, they are good. During the War, the activities of the Junior Red Cross and the participation of the schools in the sale of Thrift stamps and Liberty bonds as well as other activities obviously national in character and for the common good of all, lent themselves well as part of the general educational scheme. It was easy to employ these activities as group projects, as means of unifying the school population for great and good purposes, and that integration was necessary to success. So long as these activities serve a definite educational end, or where they serve no such end, are admittedly worthy social endeavors to which no proportion of the social group may rightfully object, they are proper school activities.

But the school is under constant pressure to carry on activities regarding whose worthiness these statements cannot be made. The school is being asked to take sides in economic questions and other matters in a state of controversy, fields which it must absolutely avoid, if it is to retain the confidence of all. If the reason why the agencies toward integration which we have been discussing have been attempting to use the school is that it is almost the only institution of universal appeal and extent entirely above suspicion, then the school must be most careful to avoid activities which represent any

single group, no matter how large. The school must avoid partisanship in every field. It must not commit itself on mooted points. It must confine its activities to fields in which practically without question the entire community is agreed. Economic division and discussion seem to have replaced to some extent in our day the old religious controversies, and the school, if it is to remain absolutely above suspicion, and to retain the confidence of all, must avoid partisanship in this field. The school does not exist for the purpose of representing any particular point of view, no matter how thoroughly the teachers are in agreement with that point of view.⁹

Then comes the ever increasing demand for teacher-participation in the general community activities. It is, of course, a point beyond debate that the teacher should be an active and good citizen, but the further demand is made, and particularly in rural communities, that the teacher furnish leadership in general community activities. Is the ability to furnish such leadership necessarily involved in the general equipment and training for the education of children? Is the demand that the teacher be a civic and social leader as well as a teacher, well grounded? Is it possible to satisfy this demand by training? Can teacher-training institutions meet it? These are questions to which we shall return in a later section.

Before facing them we must note the final demand for school extension; namely, definite, concrete extension of scope involving not only non-traditional activities, but non-traditional participants in these activities—adults.

⁹ For an indication of the very real dangers that may follow disregard of these principles, see J. H. Maurer, "Labor's Demand for Its Own Schools," *The Nation*, Vol. CXV, p. 276.

(3) **School work with adults.**—The activities here referred to may probably be grouped under three heads; namely, (a) primarily education of the old type, involving principally instruction; (b) recreational, including social as well as physical or sport activities; and (c) civic leadership.

By way of educational procedure, the school interests itself in the education of adults established in the community whose schooling has been meager, or in the education of recently arrived foreigners, who require instruction not merely in the language but in the history and institutions of the country to which they have come.

By way of recreational activities, the school, acting as a social center, and undertaking to organize the social life of the neighborhood, may undertake to supervise activities of a large variety ranging from athletics and social clubs to dances, concerts, and art exhibitions.

The demand for leadership in civic affairs, particularly in rural communities, has already been noted. In some cases this demand on the energy, ability, and adaptability of the teacher has been brilliantly met.¹⁰

The question of principle now presents itself most clearly. How far shall the school extend? What are the proper limits beyond which it should not go? What bases and guiding principles are there to assist in making decisions?

In so far as the demand represents true school extension in the form of instruction proper, the decision is easily reached. The school is the public instrumentality for instruction and it can, and should, teach adults as well as children. This disposes of the first of the three activities

¹⁰ See E. Dewey, *New Schools for Old.* (Dutton, 1917.)

referred to, and leaves two for discussion; namely, the provision of facilities and leadership in adult recreational and civic activities.

A glance at the foregoing discussion may assist in formulating conclusions: We have seen that, for certain reasons, old means of social leadership are ceasing to be effective and demand is being made on the school that it enlarge its scope. This demand involves both plant and teaching personnel. Plant and equipment, with certain safeguards and with complete impartiality, should be fully extended. Increased types of activity on the part of the school personnel involve either children or adults. Every type of activity making for child welfare, no matter how new and hitherto unheard of, should be engaged in. In relation to the adult community we note a demand for school participation in general community activities of a civic nature which should be complied with, provided and so long as they have educational value and are not partisan. Finally we come to the demand that the school personnel, children being not at all involved, should supervise certain adult activities. In so far as these call for instruction, the demand may readily be met, since it involves for adults a kind of work in which the school is skilled and for the performance of which it is the obvious and, indeed, the only existing agency.

On the other hand the supervision of adult community activities—such as adult recreation, physical, mental, and social—as well as leadership of the adult community in civic affairs, can hardly be regarded as mere extension. This demand clearly and definitely is a demand for service beyond and in addition to and not merely an extension of the function of teaching, training, and developing of chil-

dren. While some particularly brilliant individuals such as Mrs. Harvey in Missouri¹¹ may find it possible to combine with teaching general social leadership, it does not seem reasonable to demand such a combination of functions of teachers in general, nor does it seem right to hold absence of ability in such leadership against otherwise excellent teachers.

Indeed, it would probably be definitely detrimental to the teaching profession to urge it upon teachers as a whole that these additional obligations are properly the function of the teacher. It is taken for granted that every teacher should show himself a good citizen, and should participate actively in the affairs of the community. But leadership in general civic affairs of the adult community is decidedly dissociated from teaching. If it is deemed wise and desirable that the school, aside from lending its plant, should actually undertake the varied amount of activities that go under the name of school extension, it is the business of the school authorities as well as the teacher-training institutions to develop new and additional personnel.

It may, indeed, happen with some degree of frequency that certain well-trained teachers also develop this quality of leadership, but it seems vital that a differentiation of function should be recognized and that a combination of function should not be demanded. Such demand while making many good teachers unhappy in the conviction that they are not capable of rising to professional requirements, will yet fail in bringing about the desired results. It is impracticable to believe that even the best teacher-training institutions will graduate young teachers

¹¹ See E. Dewey, *New Schools for Old.* (Dutton, 1917.)

who will be equipped at the same time for teaching and for social leadership in rural and urban communities. That these institutions can meet this demand is a delusion. Training and knowledge are not enough, even though the normal schools and other teacher-training institutions found it possible to give such training and knowledge in addition to technical preparation. Leadership involves maturity, and maturity implies age and experience, characteristics which the best teacher-training institutions will find it difficult to supply to their graduates.

If the school is the proper agency for meeting the great demand that some institution undertake the social integration of the group, social, educational, and civic, then the school should consider this as a new, additional function rather than mere extension, and should provide for this purpose different additional personnel, not necessarily teachers—a personnel of different training and experience. The tendency to blame young teachers for not organizing their community socially and in the manner in which certain of them have been able to do, the assumption that this type of thing can be done, will undoubtedly work harm.

Summary

The school as an organized institution existing for the instruction of children within a well defined field and within definite hours of the day is, in America, facing the demand that it broaden in scope and take on other activities and other classes of the population, employing for this purpose not only its plant and equipment, but its personnel as well.

The reason for the demand is probably to be found in the fact that other institutions, hitherto operative in maintaining social cohesion, have become inoperative under modern conditions.

The school is the institution being tried out for this purpose because it is probably the only institution which is universal, coming into contact with the entire population, and above suspicion from the point of view of social, economic, or religious doctrine.

Extension may imply use of school plant and equipment without supervision or under supervision of agencies other than the school. It may also imply supervision of school personnel as well as use of school plant.

I. In the first instance, school plant and equipment should be available for community use during non-school hours without censorship or partisan favoritism, so long as the activities carried on are not immoral, illegal, or detrimental to property.

II. Where school extension implies supervision on the part of school personnel as well as use of plant and equipment, many questions arise. Extension in this instance may deal with either children or adults.

A. Where it concerns children this extension must respond to the needs of the day and, as the family for many reasons becomes less competent, the school must take on new aspects of care during school hours and totally new functions during non-school hours and between school sessions.

B. School extension in relation to the adult community may be of three possible types:

1. The first type is found in the effort of the school to establish contact with the community for the better

carrying on of its work. School visitors going to the home and parent-teachers associations coming to the schools, represent this group of activities.

2. A second type of the school's relationship with the adult community is exemplified in participation by the school group in such general activities as Red Cross work or the Thrift stamp movement.

3. Finally we come to a group of extension activities involving the school plant, the school personnel, and individual adults. These may be classified as:

- a. Furnishing instruction.
- b. Supervising recreation, athletic and social.
- c. Leadership in civic undertakings.

It would seem that furnishing instruction to adults is a natural extension of school work, for which the school has facilities and skill. On the other hand, it would seem unwarranted to demand that individual teachers be also apt in social and civic leadership. If the school must enter this field of the organization of the adult community for recreational and civic ends, then specially adapted and equipped persons should be employed for that purpose.

Problems

This chapter does not discuss in detail either the scope or the technique of the numerous activities which go under the name of school extension. The interested student will find in the books and pamphlets referred to, and in the bibliographies therein noted, ample opportunities for studies of these activities.

Need for different types of extension activities varies

with time and place. A local survey, along the lines outlined by Boyer, should prove of interest.

Social service and extension features of modern school systems are at present scattered. Some come within the purview of the school physician, some in that of the recreation department, some in that of the attendance department. An interesting problem is found in the need for developing and organizing in detail a central department of home contact, which shall include all these activities.

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PART III

PROBLEMS OF ORGANIZATION

CHAPTER V

THE PROFESSIONAL STATUS OF THE PRINCIPAL AND THE TEACHER

I. The Place of the Principal in American School Organization.

No phase of the organization of public education in America affords a clearer illustration of the fact that in a functioning institution practice precedes theory, than the office of the principalship in a typical city school system. The office exists; there are principals busily at work; but it is an anomalous office in that its function, its reason for being, and its goals are not clear.

"It would be difficult to find any feature of school organization," says one city superintendent, "in which a greater range of varying practices is to be found than the one suggested by this subject";¹ and the principal in one of the larger American cities remarks, in referring to the same topic, "Many principals are not clear in their own minds as to their rightful place in the school organism and the peculiar functions of that place."²

Here we have an example of an official actually functioning; obviously there is need for some person to perform his duties. Until we define these duties, however,

¹ H. S. Weet, "The Duties of the School Principal." Elementary School Journal, Vol. XX, p. 253.

² W. McClure, "The Functions of the Elementary School Principal." Elementary School Journal, Vol. XXI, p. 500.

and determine on some theoretic basis their character and scope, it is impossible to determine the type of official the schools desire, or to pass judgment on the character of his work.

There are two types of status held by principals. First, there is the principal of a one- or two-building school system or of an elementary-school district who is responsible to the Board direct, since that Board employs no superintendent. This principal is in effect the superintendent, the expert educational adviser of the Board. There is no one between him and the lay Board who depend on him for guidance and advice in the technical field of education. As to the functioning of this fortunately situated person, there is no discussion here. Obviously every problem of the elementary school comes within his scope.

The official whose functioning is here under discussion is the head of the school building in a system which is large enough to employ a superintendent. In this system he is not a teacher, for that work is done by the classroom teachers of his building. On the other hand he is presumably not responsible for the initiation of educational policies, changes, and reforms. It is the superintendent to whom the lay Boards of Education look for guidance in all matters of school work. Between this Scylla and Charybdis, what is the principal? Is he an educator at all?

Is the building principal an educational official?—One may approach this problem by asking two questions: (1) Is there need for this functionary? (2) If so, is there need for him as an educational official? Is or should the principal be part of the technical educational staff of the school system? The first of these questions obviously is

answered as soon as asked. There must be some one in whom the thousand details of the organization of the building unit center. The second question is not so easy to answer, for if one should be in agreement with that group "comprising many able and successful superintendents" who hold "that the principal's work is concerned chiefly with following directions from the central office,"³ then it would hardly be proper to dignify a principal with the term educator. That term, if it means anything, involves the right to initiate policies and think on the problems of education.

In an admirable series of articles in the "Elementary School Journal" referred to in detail in the bibliography at the end of this chapter, a number of experienced educational thinkers set themselves the problem of determining what it is that the principal actually does. In order to gather the data which must precede the theory of a function, the sources and means of securing information were varied, but they were no less so than the actual data gathered.

One of the most exhaustive statements, made on the basis of large actual experience by a principal,⁴ may be tabulated briefly for our purposes as follows:

I. Administrative Duties.

A. Annual and semiannual routine.

1. Supplies and equipment.
2. Promotion and transfer of classes.
3. Individual cases of promotion.
4. Classifying new pupils.
5. Checking up the permanent records of pupils.

³ W. McClure, "The Functions of the Elementary School Principal." *Elementary School Journal*, Vol. XXI, p. 500.

⁴ H. W. Nutt, "The Duties of an Elementary School Principal." *Elementary School Journal*, Vol. XIX, p. 174.

6. Reports to the superintendent.
7. Making schedules.
8. Commencement exercises.

B. Daily routine.

1. Inspection of building and grounds.
2. Inspection of janitor service.
3. General management of pupils on the playgrounds and about the building during the period in which they are permitted to come upon the premises before school work begins.
4. Excluding pupils from school because of physical unfitness, contagious diseases or uncleanness.
5. Looking after attendance.
6. Cases of general and special discipline.
7. Taking care of pupils who remain in school during luncheon periods.

C. Miscellaneous duties.

1. Fire drills.
2. School enterprises and activities.
3. Parent-teachers organizations.
4. Teachers' meetings.
5. School exhibits.

II. Pedagogical Duties.

- A. Teaching classes.
- B. Supervision.
- C. Adapting subject-matter and courses of study to pupils.

Large as the foregoing scope is, it does not seem to be exhaustive. Another writer⁵ in the series already referred to says that the duties of the school principal are threefold:

First, under administration and clerical duties he notes such things as looking after pay-rolls, special re-

⁵R. A. Spencer, "The Work of the School Principal in Supervision." Elementary School Journal, Vol. XX, p. 176.

ports, school organization, transfer of pupils to and from other schools, dealing with attendance officers and supervisors, coöperation with outside activities such as the sale of Thrift stamps during the War.

Second, under the topic "plant," he notes the duty of the principal to go into such details as heat, light, ventilation, cleaning; and discipline in class, on the grounds, and in the building at large.

Finally he mentions the need of classification and reclassification of pupils, making of schedules, programs in special subjects, and securing proper material for teachers.

Obviously the principal has a great deal to do. Are his duties educational in character? Should he be looked upon as an educational officer? At least some of the leaders in educational thought are of this opinion. "The great fundamental duty of the principal," says the superintendent already quoted, "is to make of his school an institution in which to the greatest extent possible the real ends of public education in this country of ours are being realized";⁶ and, to quote another thinker on the problem: "The principal should be regarded as the responsible head of his school, and as such he is invested with duties managerial, professional, and social in character."⁷

Here then we have a situation requiring attention. Neither educational thinkers nor principals agree on the character of the work to be done, on the types to be stressed, on any classification of duties. In many in-

⁶ H. S. Weet, "The Duties of the School Principal." Elementary School Journal, Vol. XX, p. 253.

⁷ W. C. Reavis, "The Duties of the Supervising Principal." Elementary School Journal, Vol. XIX, p. 279.

stances it is obvious that schools are being conducted on "an archaic theory of management," but even the student who makes this charge is forced to admit that "a new supervisory theory is only in its beginning," and that "we have relatively few clarified ideas as to the nature and place of the principal's work." There is a "dearth of accepted ideas as to the specific things of a professional character that the principal should do," continues Professor Bobbitt. "It is currently conceived that the Board and superintendent have original jurisdiction over general policies, rules, regulations, lines and methods of work, etc., and that teachers have the task of obediently carrying out the orders centrally originated. Since the principal within such a scheme is responsible for neither the general policies and directions nor the detailed classroom labors, he becomes but an intermediary without original function."⁸

It need hardly be emphasized that there is no need of creating useless and duplicating educational functionaries. If the institution of the principalship as it has developed is, indeed, an office "without original function," and if all the functions of a truly educational nature are now being performed by the superintendent and his supervisory force on the one hand, and the classroom teaching staff on the other, it may well be that we have outgrown the principalship as an educational instrumentality—that the principalship has become a necessary but non-educational agency of the central office within the individual building.

Obviously, one of the reasons for the divergence in the

⁸F. Bobbitt, "The Building Principal in the Surveys." Elementary School Journal, Vol. XIX, p. 106.

theory of the functioning of the principal is due to the fact that the field is so large that varying principals may devote themselves fully to any one phase of work in accordance with their particular ideas. And so Professor Gray was able to find four sets of ideas of principals as to their functions almost totally divergent in character:⁹

(1) One principal felt that his duties consisted primarily of office routine, looking after physical conditions, securing classroom material, keeping track of attendance and records; dealing with nurses and truant officers, and saving the time of the classroom teachers by looking after all details.

(2) Another thought that his principal function was the supervision of teaching, and the care of new or old inefficient teachers; the holding of conferences, suggesting additional reading, and in general improving instruction.

(3) A third principal felt that his primary business consisted of giving educational tests, and securing objective data for the purpose of presenting such material to teachers, showing them the status of their instruction and suggesting to them changes and emphasis; also the reclassification of pupils on the basis of these data, thus making his supervision effective.

(4) Finally, a fourth principal conceived it as his chief function to cheer and encourage teachers, and to secure the coöperation of parents.

Here then we have this official coming in contact with the central school authorities, the local community, and responsible for the physical plant as well as the health,

⁹ W. S. Gray, "The Work of Elementary School Principals," Elementary School Journal, Vol. XIX, p. 24.

morals, recreation, and education of his pupil community; dealing with teachers, organizing their work, and functioning as an educational leader. Is there an inevitable, a less arbitrary means of describing, analyzing, and grouping the functions of the principalship, a way really inherent in the office itself? Are his functions necessarily clerical routine? Is the presumed and tacitly agreed upon demand for educational leadership merely so much verbiage, merely traditional thinking?

The work of the principal analyzed.—After all, the fundamental question is whether there is need for educational leadership within the building, and not whether the principal should try to be an educational leader. Something may be gained by looking at the question pragmatically. What are actually the indispensable functions of the officer under discussion? These may be grouped under three heads:

(1) Some duties now being performed by the principal are inherent in the situation and unescapable. They are duties which would not be performed at all, were they not performed by the principal. These duties belong to him but they are routine duties. They can be adequately performed by a person following directions and carrying out policies centrally initiated.

(2) There are duties inherent in the fact that the school is located in a particular neighborhood; duties which, if not carried on by the principal, will not be carried on at all. These functions are perhaps not necessarily educational; but they require initiative and leadership.

(3) Finally there are duties of local differentiation from an educational point of view, as for example, the

development of an *esprit de corps*, the training of teachers in service, the improvement of instruction, and the adaptation of general curricula and methods to local situations. These duties are educational in character. But the ability of the principal to carry them on depends not only on his willingness and expertness; it depends also, first, on his being relieved from such routine as can be performed by another and, secondly, on his receiving scope to vary from the general policies laid down for the city at large.

This grouping of activities into three types may, from the point of view of the principal and his available time and energy, be rearranged into two types of activities: (1) There are some things which he does because there is no one else to do them. The character of these activities is such that any one might do them, a person less trained, less experienced, less mature. These activities the principal carries on because there is no one else on hand.¹⁰ (2) There are other types of work which can be done by the principal only. If not done by him, they will not be performed at all.

In the past, the first group, involving many details and much routine labor, has probably occupied his attention to the exclusion of general educational leadership. If educational participation is not expected of him, it is right that he should find his way as best he can through the mass of details. If, on the other hand, it is right that his efforts should be given mainly to real educational leadership, then we should adopt the principle that the

¹⁰ As this is being written, a good example comes to hand: Press despatches from Salt Lake City report that an elementary-school principal in that city was electrocuted in the basement of the school building where he had gone to ascertain why the fires had not been started.

principal should not do anything, even though it be inherent in the situation, which he can delegate to others. The most uneconomical thing that any institution or organization can do is to utilize trained efficiency for petty routine. If it is the business of the principal in fact to provide true educational leadership, then there should be given to him means of delegating clerical work as well as details of plant inspection and the unescapable discipline cases.

One comes then squarely face to face with this problem: Is there room for the principal as an educator in the American school system? Professor Bobbitt studied the school surveys to find an answer to this question as viewed by educational experts. He groups the "functions and relations of the principal as these are revealed in the survey reports"¹¹ under a series of general headings, as follows:

1. Direction of the work, as real educational head. This involves exercise of initiative, leadership in developing curriculum, and in the supervision of instruction, and in securing the coöperation of the teaching force.
2. Training teachers in service.
3. Inspection of the results of teaching by studying (a) processes, and (b) objective results as measured by standard tests.
4. Improvement of the work of the school by directing and advising teachers on the basis of the findings.
5. Participation in the development of the general plans and policies of the entire school system.
6. Coöperation in general inspectorial labors, involving reports and other assistance to central authorities.
7. Participation in choice of teachers, and in the selection of equipment.

¹¹ In the article referred to above.

This group of duties Professor Bobbitt classifies into three divisions—(1) clerical, (2) building routine, (3) those involving the technical ability of the educational specialist—and assumes that, the last being the only one primarily professional, assistance should be provided the principal for the first two types, to relieve him for real educational work.

II. Obstacles to Professionalization of Principals and Teachers

But as we have seen, practice does not conform to these ideas. The reasons are deep-rooted in our general theory of school organization. It is accepted in America that the best division of authority between the lay Board of Education and its superintendent should be that modeled on a business corporation; namely, that the Board should confine itself to the development of general policies, leaving educational technical matters to the superintendent. This division of power seems to be correct in view of the fact that the Boards are not trained in education and are not devoting their time to the details of carrying on the schools.

But the question may well be asked whether the comparison with a business organization holds further. Following the analogy, it is assumed that the superintendent is the only officer responsible for the development of educational policies, and he, therefore, in the typical American system occupies a purely autocratic position. "In respect to concentration of power and responsibility, no other type of educational position in America compares even remotely with the city and large-town superintendency, developed to the most generally and highly ap-

proved degree. By contrast, the power of the university presidency, public or private, seems insignificant; its responsibility, vague and indefinite."¹² The city teaching staff are ordinarily chosen for specific functions, and are asked to perform them.

But the question ought to be faced whether this type of organization is one best calculated to operate most fruitfully for the education of the youth of the land. School men are fond of comparing the management of education to the management of business, and usually to the disparagement of education. One frequently employed method of indicating inefficiency in school management is to indicate where it differs from what would go on in a business office. It is almost universally assumed that the analogy holds throughout, and that one of the best things that a school can do is to model itself on the methods of carrying on commerce and industry. The writer of a book on methods, for example, in his chapter entitled "Economy in Classroom Management," states that "to avoid waste, principles of business management should be applied in the classroom." The correctness of the analogy is, as usual, assumed. "If such principles of economy are important in factories, where the product that is wasted or economized is material, they are much more important in the school, where the product to be wasted or economized consists of human lives."

But is the analogy so complete as to be valuable always? Industry and commerce do not exist primarily for the purpose of operating efficiently. They exist for

¹² F. E. Spaulding, "The Superintendency as a Career." *School and Society*, Vol. XV, p. 31.

the purpose of producing profits for their owners. Efficiency is one of the phases of making the maximum profit. Fundamentally there is one interested party in the ultimate efficiency of commerce and industry; namely, the owner. The employees used as instruments in obtaining these profits have minor interests quite their own, i.e., the obtaining of salaries and wages. The ultimate interest is ordinarily not theirs, but that of their employers.

On the other hand, it is, or ought to be fundamental in education that the persons employed in the process are all equally interested in the fundamental outcome—the education of youth. It would be hazardous to assume that their ultimate and only interest is their own personal security and status in the educational system. When we adopt for educational organizations the factory system of manager and employees, of one person to think and others to obey, we are following an analogy that does not hold, and creating a well warranted restlessness. The teacher sent into the classroom to teach a curriculum that she has had no share in making is not an educator. Neither is the principal an educator, of whom it is expected merely that he take orders and put into effect the ideas of the central authorities.

One of the writers already referred to mentions a superintendent of schools who "stated that the greatest problem of the superintendent was that of knowing how actually to get things accomplished in the several schools in view of the fact that each school had a principal through whom the superintendent was obliged to work." "This," he states, "adequately expresses one conception of the relation of the principal to the central school authorities. All the wisdom is found at the center and the

great problem consists in knowing how to get this wisdom to the circumference through these nonconductors—the school principals.”¹³ This relationship is wrong, if only because the superintendent is not likely to be superhuman. “The demands made upon the superintendent [under the current system of the concentration of power and responsibility in the superintendency] are capable of satisfactory fulfilment only by supermen, not by even superior mortals.”¹⁴

But even if superintendents were supermen, what a pity to arrange to make the principals dwarfs and messenger boys. This they are in danger of becoming, so long as they lack the power without which they cannot achieve dignity.

A new division of administrative powers is essential. —It is right that as between the lay Board and the educational authorities, the Board shall confine itself to the adoption of general policies under the guidance of its expert educational staff; but it is wrong that this educational responsibility shall be placed in the hands of a single individual. In our American democracy, maintaining schools for the education of the future citizens, the educational machinery is probably one of the most autocratic institutions extant. The school system as ordinarily organized does not provide for real educational work on the part of the vast majority of those employed in it. We have, it is true, arrived at the point where the superintendent no longer lays claim to educational omniscience. Some do now admit that principals and teachers

¹³ H. S. Weet, “The Duties of the School Principal.” Elementary School Journal, Vol. XX, p. 253.

¹⁴ F. E. Spaulding, “The Superintendency as a Career.” School and Society, Vol. XV, p. 32.

should be given scope for initiative, some are establishing the so-called teachers' council, whose function it is to make representations to the superintendent and offer suggestions; but let it be noted that there has been no fundamental reorganization; there has been no distribution of power. At the best we are at a point where advice is graciously listened to, but it is not in any way legally incumbent on the superintendent, the sole official exercising power, and responsible only to the Board, to accept such advice.

It is frequently asked why the schools have difficulty in attracting permanently more people of a very high caliber. One of the reasons is that they do not offer scope. They are too autocratically organized. Authority is far too centered. Principals and teachers are not permitted to be educators. "There is grave danger that the extreme concentration of power and responsibility in the superintendency, together with a logically consistent organization that extends this principle throughout the system, will tend to the development of conditions that will make public educational organization even more effective than heretofore in its processes of repelling and dominating independence, self-confidence, and aggressiveness, and of attracting and holding dependence, passivity, and timidity."¹⁵ This is the opinion of an eminently successful large-city superintendent.

If the defect is to be remedied, the educational powers now held by the superintendent must be shared with principals and teachers. It is not enough that the superintendent consent to hear teachers; he must give up the sole authority of ultimate decision. Education is not

¹⁵ *Ibid.*, p. 31.

business. All of those engaged in the process have at heart the ultimate perfection of the product. Toward this end they cannot function if they are treated as mere employees, whose business it is to obey. Teaching will never be a fully dignified profession under such conditions. It is necessary that teachers and principals be represented as a parliament or congress, not simply to make suggestions, but to share in the making of ultimate decisions. The educational authority which the lay Board of Education rightfully refrains from exercising should be turned over not to one person, but to a body of educators. This authority should be exercised not by one person but by a group representing the teaching personnel.

The comparison that has been made of the present organization to a hierachal or militaristic system is not fanciful. Says one leading American educational thinker: "*Unqualified obedience* is the first rule of efficient service. The classroom teacher owes this to his superiors, and whenever he cannot yield such obedience, his resignation is the only alternative." And again: "the situation is entirely analogous to that in any other organization or system—the army, the navy, governmental departments, great business enterprises. . . . Concentrated effort can be secured in no other way. . . . Youth is prone to resent authority. Indeed, it is hardly too much to say that our contemporary theories of education do much, perhaps unconsciously, to inculcate an attitude antagonistic to authority."¹⁶

Is this all true? Is it a correct analogy to compare the school to an army in which the general does all the thinking, and so far as teachers are concerned it is "theirs not

¹⁶ W. C. Bagley, "Classroom Management," Chapter XVII.

to reason why, theirs but to do and die"? The arrangement would hardly seem to be democratic, or consistent with current conceptions of the dignity and significance of a profession.

We have been speaking of the function of the principal, but the status of the teacher is quite analogous. It is too easy a theory to say, as the writer already quoted does say: "The superintendent demands these results of his principals, the principals pass on the demand to the classroom teachers, the classroom teachers exact the required work from the pupils. . . . Centralized authority, working through intermediate officials, is the only known method of insuring economy of school administration in this respect."

Centralized authority there must be, but in a field in which all have equal interest in the outcome there ought not to be any government except with the consent of the governed. The tendency of autocratically organized school government is to rob the school force of dignity because it robs them of really professional function.

It will be urged that the teaching profession as a whole consists of persons too young, too poorly trained, and in some respects too transitory to exercise and bear a share of ultimate educational responsibility. But suffrage does not imply the right to office. Although every one in America may vote on the attainment of a certain age, the right to become President of the United States is carefully delimited in terms of further maturity, place of birth and of residence. While all teachers might share in the choice of representatives to the central body, the character of the personnel so chosen could easily be limited, defined, and selected on the basis of age or training or

length of service within the system, or all of these combined.

The educational powers and rights properly given up by the lay Board of Education should be exercised by the teaching personnel as a whole, acting in council, and not by one person. The superintendent may well have powers, and large powers, but arbitrary and autocratic powers he should not possess. It should be possible, indeed, if the sentiment is quite overwhelming, to overrule the superintendent and to put into effect educational policies with which he is not in agreement.

In business, losses are suffered by the same person or group of persons who gain by profits. In business the enterprise is privately owned and speculatively supported by wealth hazarded by such owners. In business, therefore, it is proper that those owning a venture shall control it. In business the persons employed in the course of the carrying on of the venture have no ultimate interest in it. That interest belongs to the employer. The personnel are employed as means to an end in which they do not share. Their interests are purely personal ones—the compensation for services rendered. This compensation they receive whether the venture goes well or ill.

In war it is conceded as a result of centuries of experience that the mass cannot be permitted to share in thinking out the campaign. It is agreed that they must entrust their personal welfare to central authorities, and that efficiency ultimately depends on unquestioning obedience.

These situations are not analogous to the organization of the teaching personnel. Action based on the assump-

tion that they are so analogous is a ruinous fallacy, a fallacy that lies at the bottom of much of the inefficiency that the supervisory authorities now complain of. Principals and teachers must be given a share in the education of youth. The time has come to make the autocratic school superintendent a constitutional monarch. The method of the teachers' council is only autocracy receiving counsel and not parting with power.

III. A Theory of the Principalship

What then is the function of the elementary-school principal? It ought to be clear from the foregoing that the primary difficulty in the way of formulating the function of the principal is the fact that he has really been carrying on with the superintendent a contest of power for the privilege of educational leadership. This contest has been an unequal one for two reasons:

(1) The superintendent ordinarily has the power, if we may follow a happy business phrase, "to hire and to fire," a power that tends to develop servility. The American principal and teacher have ordinarily no vested interest in their professional career. They have no security of tenure; they are the merest employees.

(2) A second factor making this contest uneven lies in the fact that the American principal ordinarily has no professional consciousness as such. Almost never has he been specifically trained for his work. Almost always he is a promoted teacher, well accustomed to obedience and to taking instructions. The normal schools, the traditional institutions for the training of teachers, have ordinarily made no provision for training school administrators. Indeed, it may be said again that in

America there is no career of school administration.

This office is usually made a means of rewarding good teachers, and good classroom teachers do not necessarily make good administrative officials. "Most principals have never had any systematic training for supervision. They were trained as teachers and for teaching. What the great majority of them have learned incidentally as to the technic of supervision is like most undirected incidental learning: it is fragmentary, ill-proportioned, and frequently erroneous. Usually principals are more in need of training in the technic of supervision than teachers are in the technic of teaching."¹⁷

A democratic organization of education will ultimately make specific provision for the career of administration. Classroom teachers will be so well rewarded that administration will not lure as a mere means of advancement. Administration will draw persons particularly interested in that field. Such persons will develop a professional consciousness that will make their contribution to educational discussion well worth heeding.

The first great educational function of the principal under such an organization will be the carrying of a full share of the general business of the education of children within the system of which he is a part. A second function will be educational administration of one unit of the school in accordance with principles that the leader has helped to formulate and in coöperation with a group of fellow workers who, too, have had their share in setting the goals and objectives toward which the system is aiming. That part of such local administration will consist of

¹⁷ F. Bobbitt, "The Building Principal in the Surveys." Elementary School Journal, Vol. XIX, p. 116.

improving teaching technic by group-study, by individual conference, by careful watching of young teachers, may all be taken for granted. That part of such administration will consist of making adaptation to the particular needs of the neighborhood in which the principal is working may also be taken for granted.

To-day we have no established, worked-out and agreed-upon technic for the work of the principal because we have no such formulated ideas as to his function. When that function has been worked out with true conformity to democratic principles and to the demands of professional dignity as well as complete professional functioning, the principals will work out the technic of their office.

Summary

Between the teacher, whose function is clear, and the superintendent who is employed by the Board to be its technical adviser, to initiate policies, and to supervise their execution, the building principal holds an anomalous position. He obviously is engaged in necessary work, since some one must perform the tasks that fall to him. But is this work educational in character?

The character of his duties and the degree of responsibility as between systems vary from mere obedience, to the privilege of suggestion, and the exercise of some discretionary power not only because of the differences in opinion between superintendents, but because principals themselves do not agree as to the character of their function. There is an amazing difference in practice as regards the duties performed and emphasized. Assuming that most of the work carried on must be performed by

some one, the question remains whether the principalship is an educational office.

If the principalship is essentially an educational office, then we need standards by means of which to define its scope of activity and to measure performance. We need educational thinking and the formulation of a suitable theory.

The principal performs three types of work. He does (1) some work which, though necessary, might be done by any one else, since it requires no educational training; (2) some work which, if not done by the principal, will not be done at all, since it grows out of the school's local relations; (3) finally, real educational work within the school itself.

Principals have heretofore stressed varying phases of these possible activities because no one individual can personally carry on all of them. Which work really belongs to the principal cannot be determined until the point is settled whether or not he really is an educational official in the complete sense of that term.

Assuming that the principal has educational work to do, he ought to be released for this work by having furnished for him assistance for every phase of the work which, though essential, is not educational in character. The principle ought to be that he should undertake no activity which might be as efficiently carried on by some one else.

The claim is made in this chapter that there is room and need for the principal as an educational functionary, but that present school organization, centering, as it does, autocratic authority in the superintendent, makes it impossible for the principal to be an educator. To place

him in a position to contribute initiative and leadership, the proposal is made that the educational power, properly given up by the lay Board should in part, at least, be exercised by the teaching personnel as a whole.

Problems

The question around which this chapter primarily centers is one involving the proper distribution and exercise of the educational power possessed but not exercised by the lay Boards—power almost completely delegated to one person. A secondary question involves the determination of the function of a building principal and a technic for his office.

Obviously, the solutions suggested may be wrong and, very likely, they are not those which will finally be found. These proposals should, however, stimulate the student to participate in the discussion and the effort to solve the problem.

The literature on this subject is neither extensive nor authoritative. Problems centering about the theme of this chapter would therefore, involve direct investigation of local school practice.

Bibliography

(1) The following series of articles in the "Elementary School Journal" is of outstanding importance:

Vol. XIX, p. 24. W. S. GRAY, The Work of the Elementary School Principal. P. 106. F. BOBBITT, The Building Principal in the Survey. P. 174. H. W. NUTT, The Duties of an Elementary School Principal.

P. 279 W. C. REAVIS, *The Duties of the Supervising Principal.*

Vol. XX, p. 176. R. A. SPENCER, *The Work of the School Principal in Supervision.* P. 253. H. S. WEET, *The Duties of the School Principal.* P. 337. F. BOBBITT, *Mistakes Often Made by Principals.*

Vol. XXI, p. 500. W. McCLURE, *The Function of the Elementary School Principal.* P. 735. W. McCLURE, *Professionalizing the Principalship.*

Vol. XXIII, p. 121. A. S. GIST AND W. A. KING, *The Efficiency of the Principalship.*

(2) The student in this field will find it imperative to follow the Yearbooks of the Department of Elementary School Principals of the National Education Association. The first of these has been issued and is entitled, "The Technique of Supervision by the Elementary School Principal."

(3) On the present status of teacher-participation in school administration, the student will find an excellent summary by J. B. Sears in the American School Board Journal for October, 1921, p. 29, entitled "Teacher Participation in Public School Administration."

(4) E. P. Cubberley, "The Principal and His School (Houghton Mifflin, 1923); Ide G. Sargent, "The Elementary School and the Readjustment of the Next Ten Years," Proceedings of the National Education Association, 1921, p. 444.

CHAPTER VI

THE PUPIL COMMUNITY—PHYSICAL WELFARE

Enlarged meaning of education.—“The pedagogue,” says the *Encyclopædia Britannica*, “was a slave in an Athenian household who looked after the personal safety of the sons of the master of the house—kept them from bad company, and took them to and from school and the gymnasium.” In the course of history the meaning of the word pedagogy and the function of the pedagogue developed ever farther away from any idea of supervision over the physical welfare of the pupil, and became ever more restricted to his mental training. But a superficial glance over a well equipped school plant of to-day, with its provisions for recreation, for the care of the teeth, eyes, and the rest of the body, with its provisions for bathing, sleeping, and indeed, feeding, makes one wonder whether the democratic community, replacing the master of the Athenian household, is not rehabilitating the words pedagogue and pedagogy in their ancient as well as an enlarged function.

American communities to-day are taking a hitherto unheard-of interest in, and spending hitherto unheard-of sums for the physical well-being of school children. That this interest in the physical well-being of the child is well grounded and that the expenditure of funds for that purpose is justified, is now so clear that it need no longer

be discussed in our democracy. The general aptness of that phrase of Horace, that has come down through the centuries, "Mens sana in corpore sano," has always been admitted. But active attention to the demand involved in the theory is only just beginning. The reasons for the present social interest in the physical care of the child are obvious enough; they are implied in mass education within a democracy. These new school activities are the result of an enlightened social philosophy which sees in the welfare of each individual, the ultimate welfare of the group.

The comparative novelty of many of the movements in education is explained when we recall the recency of tax-supported, universal education itself. In the days of struggle for the establishment of the very school, refinements were not in place. To-day, with the basic principles established, the school is reaching out for qualitative improvement, and seeking to serve by enlarging the scope and significance of education.

While all of the work to be discussed in this chapter began in progressive cities a number of years ago, recent events have helped to center attention upon conditions it is sought to remedy, and have given impetus and public support in that direction. The social survey automatically brought about by America's entrance into the war has brought actual conditions vividly to the attention of the country as a whole. Again, recent increase of knowledge in the field of hygiene, involving a great deal of technical information necessary in the nurture of children, is making the home an ever less competent agency for the complete care of the child. Urban conditions, modern industrial organization, poverty and ignorance

on the part of sections of the adult community, all tend to decrease the ability of the home best to care for the child.

In accounting for the growing interest in physical welfare, one writer refers to the "startling and widely discussed results of the experience of the army in examining recruits drafted for service and of three surveys; namely, that of the schools, showing a large percentage of children underweight; that of the insurance companies, in which the average span of good health is estimated to be only ten years; and that of the hospitals which brings out the fact that there are in the United States over three million people sick every day from causes largely preventable."¹

Teaching as one phase of education.—It is interesting and important to note that teaching is rapidly becoming but one phase and coördinate activity in the general process of education. There has heretofore been very little distinction between teaching and education. Education has meant to a very large extent the process of instruction. But the fact is that the process of carrying on public education is growing complex, and fairly divisible into a number of phases, of which teaching is one. The mental classification of pupils is the work of the psychologist. The derivation of the curriculum in general terms has become the work of experts, as is the work of objective measurements of the results of instruction. And so, too, the care of the physical well-being of the child is rapidly becoming a large, expensive, and highly technical phase of public education. Education and

¹ Carolyn Hoefer, "Increasing the Efficiency of Health Instruction in the Public Schools." Elementary School Journal, Vol. XXII, p. 31.

teaching are no longer synonymous. Education, indeed, is no longer the work of a single individual. Public education, which itself has heretofore been a phase of nurture, is rapidly becoming a great social function rather more coextensive with, than a part of, nurture, and the work of the teacher is becoming one part of this process.

The method in preceding chapters has been to examine actual practice and to endeavor to derive and to establish principles; but these chapters have dealt as the following chapters will deal with that part of education which is the business of the teacher. Special fields such as psychology, whose theory and technique are themselves the subject of a voluminous literature, cannot be considered in detail. Practice in these fields is no longer properly in the hands of the teacher. Likewise, in this matter of the physical care of the child, it is not practical to follow the method of deriving sound principles for two reasons: First, it is a specialized, distinct, and technical field in which the teacher will never be asked to become an expert. Secondly, work in this field is at the moment in a state of flux and development, and very few principles may be said to have been finally established.

Yet it is desirable to picture modern practice in this important phase of public education, since ignorance of actual practice and ideals would hardly be excusable. Though they may not participate in them, teachers are vitally interested in all phases of the educative process. For these reasons the following pages tend to be descriptive, and to outline actual practice in progressive city systems. Concrete examples seem better suited to our purpose than general, detailed, and technical discussion

in a field which in itself warrants a volume. In this chapter we substitute, therefore, in part, description for discussion.

Whatever the ultimate classification may turn out to be, it is possible and practical for our purpose to consider the work of the public school in the interest of the physical welfare of the child from three points of view, namely, plant, general health, and play. It is obvious, of course, that all three groups of work have health as their prime objective. It is clear, too, that there can be no hard and fast boundaries between these activities. They are closely interrelated and interdependent, all three converging toward the vigor, health, and happiness of the child. The groupings are arbitrary, being based rather on current administrative practice than on fundamental principles, but they will serve our purpose.

I. Plant and Equipment

"It has been estimated," states the Commissioner of Education, writing in 1910, "that this country spends approximately seventy millions of dollars annually in the erection of public-school buildings,"² excluding building for normal schools, colleges, and universities. In the nature of things, this sum is now much larger, and an expenditure of this size cannot be effectively made without a very specialized knowledge of modern sanitary technique and educational requirements. A great deal of information has, indeed, been accumulated regarding the special requirements of schools.

Books are available on the principles of school construction. Here we will content ourselves with an enumeration of the topics discussed in a recent study of the

²U.S. Bureau of Education Bulletin, 1910, No. 5.

school equipment of a large city,³ and the description of a modern elementary school building in another city, primarily for the purpose of indicating to the uninitiated reader the character and extent of the information available in this field. In discussing equipment, the survey referred to deals with location, playgrounds, lighting, blackboards, heating and ventilation, assembly rooms, basements, toilets, drinking fountains, fire prevention, janitor service, and lays down basic principles under each topic.

"The school must serve a twofold purpose," says Superintendent Cody, of Detroit, in his annual report—August, 1921—to the Board of Education; "first as part of the machinery by which children are made fit for good citizenship, and, second, as a community rallying point. To perform these functions successfully the school must be developed as a complete plant from a teaching, mechanical, and landscaping standpoint. It must be attractive to grown-ups as well as to children. It must be beautiful inside and out. The Board of Education," he states, "has realized the social and academic importance of attractive interiors and pleasing exteriors, with plenty of room for playgrounds, lawn, shrubs, and flowers. After careful and serious study of this vital problem, there have been created, within the Department of Architectural Engineering, divisions of Interior Design and of Landscape Gardening. In future planning no unit will be considered complete until the interior is finished in pleasing color and the exterior is properly planted with sod, shrubs, and proper plants. This will result in far more effective and attractive school plants."

³U.S. Bureau of Education Bulletin, 1917, No. 46.

The standard elementary-school building plan as developed in the city of Detroit, contains the following accommodations:

First Floor

- 22 Classrooms, 22' x 30'.
- 2 Girls' Toilets.
- 2 Boys' Toilets.
- 2 Kindergartens.
- 2 Auditoriums, 30' x 32'.
- 1 Medical Department (Clinic).
- 1 Manual-Training Room, 30' x 21'.
- 1 Administration Department.
- 1 Boiler Room.
- 1 Boys' Lockers and Showers, 59' x 24'.
- 1 Girls' Lockers and Showers, 59' x 24'.
- 1 Boys' Gymnasium, 59' x 36'.
- 1 Girls' Gymnasium, 59' x 36'.
- 1 Teachers' Room.

Second Floor

- 26 Classrooms, 22' x 30'.
- 2 Boys' Toilets.
- 2 Girls' Toilets.
- 1 Science Room, 22' x 30'.
- 1 Library, 93' x 30'.
- 1 Covered Play Roof, 132' x 36'.
- 1 Teachers' Room.
- 1 Sight Conservation Room (Conservation), 29' x 21'.

Third Floor

- 2 Classrooms.
- 1 Sun Room, 93' x 32'.
- 2 Toilets.
- 1 Clinic.
- 1 Recitation Room.
- 1 Dining Room, 51' x 21'.

II. General Health ⁴

The effort to prevent the spread of contagious diseases was probably the earliest motive and interest that brought the physician into contact with the school. The danger of spreading disease is increased in the community wherever people are gathered together in large groups, as is the case in school. This general obligation to protect children from the dangers inhering in the mere fact of their congregating in groups for many hours every day, is a corollary of compulsory education.

Health work began, therefore, with the regular inspection of children to discover early signs of infection so that children who represented a menace to the health of others might be eliminated. This work has become so effective that, according to Dr. Alvin Powell, of the Oakland Public Schools, "it is now generally conceded that there is less chance for the spread of children's diseases in a city when the schools are kept open than when they are closed."

The solution of the problem of avoiding the spread of contagion has now become a single phase of a very much more ambitious program for the health welfare of the pupil community. The general health program as now conceived is divided into (A) health promotion, (B) health protection, and (C) correction of defects. Each of these phases will in turn receive some consideration.

A. Health promotion.—The primary method of promoting health is through education, involving as that does, not merely the giving of information, but the estab-

⁴For valuable assistance in the preparation of this section, the writer is indebted to Dr. Alvin Powell, Director of the Department of Health Development of the Oakland, California, City Schools.

lishment of good habits. The discussion of the material and methods for teaching health principles has already assumed large proportions, and remarkable progress is being made in the development of a very special technic. This is one field in which the demand that teaching shall function is most readily made. It is not enough that the child shall know; the school must devise means for inducing him to act on his knowledge. Physiology, anatomy, and hygiene as hitherto taught, are being altered in character. As formerly taught, these subjects have not functioned. In their place, the study of health and appropriate activities are being introduced in forms adapted to the ages of the children. In the program of Oakland, California, children for this purpose are divided into two groups as follows: grades 1 to 4; 5 to 6.

(1) GRADES 1 TO 4.—“The child on entering school has little concern for matters pertaining to health. He lives largely in a world of the present with its keen joys and equally vivid sorrows.” The most that can be hoped for in these grades is that the child will form good health habits, and these are best encouraged through his interest in games, stories, songs, plays, and pictures.

(2) GRADES 5 AND 6.—“It is important that the middle grade teachers make themselves very familiar with the work accomplished in the formation of health habits in the primary grades and continue along the same lines but necessarily from a different angle. The fairy story makes less appeal but there is greater interest in real stories.” These children are capable of applying knowledge. It is here that health facts can be taught in a serious way. For the accomplishment of these educa-

tional ends, there have been prepared graded bulletins and outlines constituting a course of study which involves, incidentally, physical education, home economics, drawing, languages, arithmetic, hygiene, and general science.

B. Health protection.—The work outlined above belongs to the teacher. This group and the one that follows, are necessarily carried on in large part by physicians and nurses. Health-protection activities refer to routine work which is carried on constantly and which applies to all children. It is not the correction of gross conditions to be described later. It is not mere prevention, such as is involved in the fight to stamp out communicable diseases. It is affirmative health work which goes on hand in hand with formal education, to insure the physical future of every child. Five kinds of work fall under this head.

(1) **GENERAL SANITATION.**—This work involves systematic inspection by the health department of the general sanitation of the schools and grounds. Frequent sanitary surveys of the entire school system are part of this work.

(2) **SCHOOL FEEDING.**—Every child in the Oakland Public Schools, to cite a concrete example, is provided with a mid-morning lunch consisting of an eight-ounce bottle of milk and a cracker or piece of bread. A charge of five cents is made. All children who are seven per cent. or more below the standard of weight for their height and age are provided with the mid-morning lunch without charge, if they cannot afford to pay for it.⁵ During the month of February, 1922, for example, there were

⁵Funds for this purpose are at present provided by the Federation of Mothers' Clubs and the Parent-Teachers' Association.

furnished free to these children approximately five thousand bottles of milk.

(3) DENTAL SERVICE.—A certain—at present still incomplete—amount of dental service is furnished in the Oakland schools. This is not done with the intention of replacing the family dentist, or even of usurping the function of the regular relief agencies where attention is needed when parents cannot pay. The object of the dental work as at present carried on is rather intended to be educational and preventive in character, and aims to establish and strengthen good health habits. Examination and advice, cleaning, and a very limited amount of corrective work characterize this effort.

(4) INDIVIDUAL EXAMINATION.—An examination, the results of which are properly recorded and filed at the central office as well as at the school attended by the child, is made of every pupil attending the Oakland Public Schools. The work is done coöperatively by teams, on each of which there is a nurse, a dentist or dental hygienist, a physical director, a physician, and a clerk. The character and thoroughness of this examination may be indicated by a list of the points noted: age, height, weight, nutrition, posture, general appearance, skin, parasites, eyes, ears, nose, teeth, throat, neck, chest, heart, lungs, abdomen, vaccination.

The object of this examination is twofold: In the first place it selects individual children for the special attention to be discussed in the following section. In the second place it supplies the central office with data regarding the health and physical status of the school population at large. This method of mass treatment of medical data is new and the benefit ultimately to be de-

rived is probably not yet fully realized. But even now, the medical director, with the data before him, can see where improvement is most needed, can learn whether children improve or decline as they grow older—by comparing various age groups—and can study the effect of school conditions such as length of day and sedentary methods of instruction and of school equipment, such as light and type, on the general physical condition of growing children.

(5) EMERGENCY TREATMENT.—Finally, there may be mentioned, under the classification of protective work, the emergency aid given by nurses and physicians wherever possible.

C. Health correction.—Perhaps the most important object of the general examination described above is the discovery of those children who are below normal in any respect, and therefore in need of attention. Such children are immediately brought to notice and work on each individual case is begun. In many cases some single, specific step is necessary such as tonsil operation, or the provision of glasses and, after this has been accomplished, the child may be lost in the mass until the next routine examination. In other cases, however, a long period of attention may be in prospect.

In the case of this group of children, the routine procedure provides for advice to parent and child by the physician, nurse, home teacher, or classroom teacher. A second examination, too, may be made by the neighborhood center physician—Oakland is divided for this purpose into eleven centers—who works in conjunction with the central office,⁶ and who comes in contact with and

⁶ These services are in Oakland paid for with funds provided by the Junior Red Cross.

gives personal advice to parents. Ordinarily no treatment other than emergency aid is given at the neighborhood center.

Finally, there is the group of children who have not been brought up to normal by this procedure, but who can be benefited by further attention. These children are brought in contact with local relief agencies of a medical character, or assisted in securing admission to appropriate institutions. The Public Health Center of Oakland, closely associated with the schools, conducts every type of clinic, including teeth and eyes, and makes provision for some types of operation such as tonsils and adenoids.

A preventorium, special nutrition classes, conservation classes for sight and hearing, open-air classes, and other forms of health work are considered appropriate school activities in the case of these children.

III. Play⁷

Modern physical education has two great aims: physical efficiency and good citizenship. To refer to the second objective first:

A. Citizenship training.—Play is one of the deep hungers of child life—universal with all peoples and all ages. To the child it is life itself. It is the key which unlocks the most difficult problems of discipline; it is the key which unlocks untapped reservoirs of interest. It points to the golden opportunity of the teacher, by which she can place herself in sympathy with these vital issues of child life. The play yard, then, becomes a laboratory,

⁷For valuable assistance in the preparation of this section, the writer is indebted to Mr. Jay B. Nash, Director of Physical Education of the Oakland, California, City Schools.

where these hungers are given expression. The restraint of the four walls of the schoolroom is off, the real self is loosened, and the opportunity for direction is unlimited. Good citizenship in children's games, beginning with the simple games of the fourth grade which contain the embryo of teamwork, up through the games of basketball and football of the high school, calls for many of the same qualities as good citizenship in the State.

B. Physical efficiency: sources.—The foundation of physical efficiency, which must become the basis not only of the recreation of the adult, but also of the work of the adult, is found largely in the play life of the child. This play life, involving vigorous exercise in the open air, alone can lay the foundation for body, mind, and soul to meet the rigors and strain of modern life. In this connection the word "play" must not be confused with idleness or amusement.

Development comes through activity, so that remedial measures which correct bad posture and rectify bad habits are merely removing handicaps for the race of life and are in no way adding capacity. This capacity must come through activity, and from an activity which is pushed forward by the driving instinct of play. Play does not comprise the whole of physical education, but for the normal boy and girl in need of long hours of vigorous exercise which is driven by the instinctive hunger of the child, *play must be considered the principal form of physical education.*

"For the development by maturity of a physical and moral efficiency and a disciplined citizenship, the following daily amounts of vigorous activity during the period of childhood and youth are necessary:"⁸

⁸ See California State Manual on Physical Education.

AGE PERIODS	WAKING HOURS	AMOUNT OF ACTIVITY
6	12 $\frac{3}{4}$	4 $\frac{3}{4}$
7	13	5
8	13 $\frac{1}{2}$	5 $\frac{1}{2}$
9	13 $\frac{3}{4}$	6
10	14	6
11	14	5 $\frac{1}{2}$
12	14	5

This exercise must not be got from what we usually term "work." It must be exercise which is impelled by a desire for joyous activity for its own sake.

Finally, no program in physical education is complete unless a very definite set of proper carry-over habits is established in the lives of the boys and girls. Many children are physically sound upon graduation from school, but thereafter by slow degrees drop into sedentary habits which impair their efficiency. These carry-over habits will have to take the form of recreation which will be truly re-creation. This re-creation is not only a physical process, but a mental one as well. The great strain in modern life is mental rather than physical. If physical education fails to develop these carry-over habits, it has, to a large extent, failed in accomplishing the highest ideals of attainment.

From the standpoint of physical efficiency, the following phases must, therefore, be given careful consideration:

(1) **BIG-MUSCLE ACTIVITY.**—By the activities of the big muscles themselves, and through the reaction upon the smaller and voluntary muscles and the organic processes of the body, vigorous exercise will insure the growth and development of the boy and girl through the development of muscular strength, skill, and vitality, and through the development of nervous energy and capacity.

(2) CREATION OF PHYSICAL HABITS THAT WILL CARRY OVER THROUGH LIFE AS WELL AS THE OUT-OF-SCHOOL HOURS OF THE CHILD.—By stressing games that the boy and girl will carry over, such as baseball, tennis, volley ball, and swimming, the school may assure habits of exercise through middle life. Related activities, such as camping, hiking, boating, gardening, and even hunting and fishing, should be encouraged from this standpoint. The great need for this play to furnish leisure-time activities for the children is seen when it is clearly understood that the children spend approximately a thousand hours per year in school, as compared with eighteen hundred hours on the street—this not including sleeping, eating, and short periods about the home.

(3) REMOVAL OF GROWTH HANDICAPS.—Under this head comes the removal of any handicap that will interfere with the growth and development of the child. The content here would vary from dealing with postural handicaps to psychic states.

(4) TEACHING OF EFFICIENT LIVING.—Under this head are considered problems of proper weight and height, malnutrition, habits of personal cleanliness, sanitation, which would deal with the care of the home, school, or play yard; also problems of proper food, sleep, rest, exercise, fresh air, etc.

C. Physical efficiency: methods.—It may be said that work for the development of physical efficiency is carried on in three forms: natural activities, athletic activities, and formal work activities. Each group will be described briefly.

(1) NATURAL ACTIVITIES.

a. *Stunts.*—Stunts come under the type of activities in which one child challenges another in feats that require

courage and balance. They come under the "I-dare-you-to-do-it" and "I-will-if-you-will" class. They were very prominent in connection with the farming life of this country, when children hung from rafters of barns, jumped into the haymows, chinned themselves, and did other individual feats. Those stunts can be made valuable in modern schools if properly handled.

b. Rhythmic activities.—These rhythmic activities, which begin with simple rhythmic games of the "Did-you-ever-see-a-lassie?" type and at later stages develop into more complicated folk games, are designed to satisfy the individual's hunger for rhythmic movements. The close coöperation of the teaching of music and the teaching of physical education may, from this point of view, be of great value.

c. Dramatic activities.—These dramatic activities begin with the very simple imaginative story plays of the kindergarten. In these activities the children imitate many adult activities and play activities of older children, such as climbing ladders, ringing bells, and picking fruit. These activities lead up to the simple interpretative plays and more complicated plays of older child life.

d. Tag games.—These activities include the great mass of traditional children's games, in which one person is "it." The games involve a great variety of hiding, seeking, and chasing elements. They are "social dramatizations of situations which exercise racially old instinctive tendencies." They also form the basis of a great many of the more complicated team games of later age periods.

(2) **ATHLETIC ACTIVITIES.**—These activities include the mass of games for older boys and girls which can be measured or scored. There is a great range of activity

under this head, which can be broadly placed in two classes:

a. *Individual activities.*—These are the activities in which an individual can compete by himself against time, space, or certain set standards. In the city of Oakland they include all the track events, swimming events, and decathlon events.

b. *Athletic games.*—These activities include the games involving competition of two or more persons. There may be only one person on each side, as in tennis singles or handball; or there may be a team of two on each side, as in tennis doubles or handball. Again, there may be a larger group, as in basketball, soccer, or baseball. This includes, of course, the simpler games such as net ball and bat ball.

(3) *Formal activities.*—These activities include the great mass of setting-up exercises, calisthenics, schoolroom gymnastics, as they have been variously called. This includes that type of mass work where one teacher handles a large number of individuals in formal set exercises or drills. This type of activity has been greatly overdone during recent years—not only greatly overdone but very poorly done. Children are seldom interested in this type of activity, the interest having to be aroused as a means toward an end. Properly handled, this formal type should show results in the following way:

a. *Muscular discipline.*—These exercises should develop the coördination of muscles and insure a quick, accurate muscular response to command. This phase of activity is very important when properly handled.

b. *Muscular development.*—A number of very valuable exercises can be given to develop various sets of

muscles which otherwise receive the minimum amount of exercise.

c. Good posture.—The main object of these formal activities should be the development of good posture. Many elements of life unite to pull down the erect posture of men. Not the least among these influences is the schoolroom furniture. The Provost-Marshal tells us that in the training camps of the last great war “slovenliness was one of the most outstanding, glaring faults of the American boy.” He further remarked that this slovenliness was reflected not only in the standing posture of the boy, but in his giving of commands and his taking of commands. It must be recognized that many of the more serious cases of bad posture go back to more serious causes, chief among which is probably mal-nutrition. In spite of this, the great mass of bad-posture cases are merely a matter of habit. In this phase of formal activity great stress should be placed on proper carriage of the body, proper standing, walking, and sitting habits. This problem cannot be handled by any special physical-education teacher, but must be a matter to which every teacher in the public schools gives attention. The posture cues should be sounded frequently in the classroom.

Heads up
Chin in
Weight forward
Stand tall.

D. Physical efficiency: related activities.—Under these related activities should be recognized many valuable forms of physical-training activities. These activ-

ties include tramping, hiking, canoeing, rowing, bicycling, riding, camping, gardening, chores about the home. An example from actual practice in the schools of Oakland, California, may assist as an illustration of these principles in actual operation. In that city the work of physical education is organized in four periods, as follows:

(1) MORNING INSPECTION.—The morning inspection in the lower grades, which develops into the period for teaching of efficient living in the upper grades, is set aside as the period to teach neatness, personal cleanliness, and some of the simple, fundamental problems of public health. The principal means of attaining these results are through short morning talks, inspection, small awards for rows having least demerits. Projects whereby the children arrange booklets on proper types of shoes, advantages of fresh air, advantages of exercise, and life in the open are used rather extensively. A number of health plays such as "Mother Goose up to Date," "The Theft of Thistledown," and "The Health Alphabet" have proved of great value.

(2) RELIEF PERIOD.—The program for this period is designed to counteract the cramped, artificial conditions which must necessarily obtain in the classroom. It is arranged as a period when the windows shall be open and a complete change of air obtained;—a body-stretch, and then a return to work.

(3) INSTRUCTIONAL PERIOD.—The instructional period is essentially a period for teaching and practising activities suitable to the various age periods which will make for development, skill, and enjoyment in play. This is the period in which to arouse enthusiasm for universal efficiency; to instil in the child a love of activity; to

arouse a pride in proper posture and efficient living. It is the time to establish habits of exercise that will become ingrained in the very fiber of the boys and girls. These habits should become so ingrained that they will remain with the child through high school, college, and later life. The elementary school is the vital formative period where health habits must be formed.

This instructional period has become the key period of physical education. In this period are taught the principles of posture; the disciplinary and development values of formal activities; rules of games; organization; exercise for the relief period, and the skill and coördination of the various decathlon events.

(4) PLAY PERIOD.—This is the period for whole-hearted participation. It includes the period before school, noon, after school, Saturdays, holidays, vacations. In other words, the period includes all leisure time during school life or later life.

IV. Basic Principles

In the chapter on school extension, it was indicated that the failure of certain established agencies to continue their former functions, and that the ever increasing amount of specialized knowledge, which makes the parent ever less capable of caring for the child, are operating to broaden the scope of the meaning of education. Instruction itself was in primitive times a function which the home and parents performed incidentally as a part of child-rearing. The time came when the complexity and specialization of knowledge required that instruction be carried on outside of the home by specially trained per-

sons. In effect, this meant the removal from the home of one definite and important phase of nurture.

When one looks at the modern school plant, which is prepared in part to care for the child's food, sleep, and cleanliness, which takes care of his eyes, ears, teeth, and undertakes to build up his general condition in other ways, one is tempted to wonder whither this constantly increasing tendency to remove from the home the burdens of the care of the child may be leading. Are we approaching the complete socialization of nurture for certain sections of the community? This idea is hardly as startling as it sounds. The politically organized community has already furnished complete care for large numbers of delinquents and defectives, while organized private enterprises are giving complete care to large numbers of dependents, and there is now heard the demand for so-called twenty-four-hour schools, intended for children whose home environment tends to endanger their future moral and social well-being.⁹

After all, it is a fact that the accumulation of specialized knowledge is making the care of childhood a technical function, for which few parents, indeed, are equipped, and it is doubtful whether it will ever be feasible to apply the advice of Herbert Spencer and teach to children at a time when they are uninterested in the matter "those activities which have for their end the rearing and discipline of offspring."

How far we have gone in this direction may be interestingly seen from the suggestion of Professor Gesell¹⁰

⁹ F. G. Nellis, "The Twenty-four Hour School," *The Journal of Delinquency*, Vol. V, p. 117.

¹⁰ A. Gesell, *Exceptional Children and Public School Policy*, p. 11. (Yale University Press.)

that communities undertake for all children "a hygienic supervision of the pre-school period. This to result in a cumulative biographic record of every child from birth registration to school entrance. The data to be secured by the extension of present infant welfare agencies; by elaborated periodic measuring and weighing days; by organizing grammar grade and high school pupils to assist in the accumulation of these records; by widening the scope of public health, nursing and of medicine, so that the psychological and developmental interests of young children will be more definitely included."

Whether nurture is ever socialized or not, the time must come when it will be realized that the mere fact of parenthood does not in itself imply the ability to rear children, and when the state will undertake to supplement this lack of ability as a matter of mere justice to the children and to itself. While some American schools do now maintain day nurseries, the trend in this direction has gone much farther abroad, where a technique is being worked out in the public care of children beginning at a very tender age.¹¹

Certainly no one will question the high mission of the home as the supreme medium for the development of childhood, but there always are homes not so well suited to the welfare of the child as other means of nurture, and socialized nurture need not mean institutionalized nurture. One can imagine socialized nurture by means of supervision of suitable homes.

The same tendency that operates to make existing institutions less competent because of the accumulation of

¹¹ See Margaret McMillan, *The Nursery School*. (Dutton, 1921.)

knowledge tends also to an ever-narrowing of functions. It is a commonplace that this is an age of specialization. Increase of knowledge and growing complexity and thoroughness of technique mean a division of the fields of labor in education as elsewhere. Increasing information, increasing division of function, specialization within a given field; this is the continuous modern progress in every division of human endeavor.

In education, for example, the teacher is no longer expected to be a psychologist. Until the advent of modern psychology and its practice by specialists who limit themselves to this field, the unusual child fared very poorly at the hands of the generally trained teacher. It is not so very many decades since "the idle fool was whipped at school." To-day he is the subject of a great deal of study which is resulting in the reorganization of educational methods. Speech defectives, too, to mention another instance, suffered tragically for many a century until the arrival of the specialist who is devoting himself to their particular need. Methods for the exact measurement of the efficiency of instruction are now in the hands of specially trained experts who rarely participate in actual teaching. And so it is with this latest development of public education, the thoroughgoing physical care of the child. Teachers have always admitted the aptness of the doctrine "A sound mind in a sound body," yet modern efficient care did not develop out of the teaching personnel, but as the result of application and study on the part of specially trained individuals.

Inadequacy of the local unit school of control.—No phase of modern educational development shows more clearly the futility of the one-teacher school than the sub-

ject about which the discussion of this chapter centers. Modern education has totally outrun the one-teacher idea. In a world of specialists, the one-teacher system is less useful than ever before. The movement for so-called consolidation, too, while still under discussion in remarkably conservative communities, has now been antiquated before its enactment in these communities. After all, consolidation means larger single schools, and these are in no position to afford the equipment and personnel necessary for the modern physical welfare of children. And so, too, the average rural county in the most progressive States from the point of view of organization, will probably find itself inadequate as a unit for the adoption of the best practice in medical inspection and care.

Possessed, as we are, with knowledge, technic, and adequate procedure in the physical care and development of children, it seems wasteful to reserve this knowledge for children in cities alone. It seems unreasonable that in spite of the fact that information and methods exist and are available, an antiquated system of organization, historical in origin and not based on any carefully derived theory, should deprive millions of children of their proper participation in the benefits to be derived. Every advance in modern educational ideas serves to emphasize anew the amazing disparity that exists in America between urban and rural communities. While the best American practice is probably excelled nowhere in the world, the application of this practice is unwarrantedly restricted to small geographical areas and to a minority of the child population. The ever growing complexity and expensiveness of modern education, as well as its constant tendency

to specialization, which increases the number of persons necessarily involved in a unit for its most perfect functioning, indicates the inevitable adoption of the State as the ultimate unit for public-school organization and control.

Summary

Given additional impetus by the disquieting disclosures brought out by the systematic survey of physical well-being during the War, the movement for extensive care for the physical development of children as a definite task of public education, is becoming widespread and well established.

The need for this work, and the decreasing efficiency of the home to carry it on, are bringing to the school a group of activities so large in scope, and requiring for excellence in supervision so much specialized training, that teaching is slowly taking its place definitely as one phase of, rather than being as heretofore coextensive with, education.

The work of the public school in the interest of the physical welfare of the child may be considered under three groups of activities: plant, health, and play.

Hygienic working conditions are fundamental. General health work consists principally of three forms of endeavor; namely, health education, health protection, and correction of defects. Play is the foundation stone of general physical education. As carried on in progressive schools, this work includes certain natural activities, athletic activities, formal activities, and non-curricular related activities.

It seems that the school, which in the first place re-

sulted from the obvious inadequacy of the home to carry on certain phases of nurture now conventionally regarded as its particular sphere, is about to enlarge its scope and relieve the home of still more responsibility.

The need for specially trained persons in each division of the work for the physical welfare of children illustrates once more the growing inadequacy of local unit control to meet the educational demands of to-day.

Problems

Practice in the work discussed in this chapter is not final. At every point the student may find, either in the literature or in the local schools, divergent opinions. Fundamental, final principles are still problematical.

Details are avoided in the foregoing discussion, but unavoidable in practice. The direction of classroom lighting and height of windows, the comparative value of various heating and ventilating systems, the degree of undernourishment and muscular underdevelopment that should single the child out for special attention, the amount of playground space per pupil—these questions are typical of scores of problems that might occupy the student in the field of education covered by this chapter.

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The United States Bureau of Education has issued an indispensable series of Bulletins on health work in the schools which should be in the hands of every classroom teacher, regardless of grade.

CHAPTER VII

THE PUPIL COMMUNITY—PROBLEMS OF ATTENDANCE

I. Compulsory Education Legislation

The right of the State to compel attendance.—It is apparent that increasing socialization of common activities under the leadership of the State always involves the limitation of the rights of the individual. Laws governing the safety, sanitation, and working conditions of factories, or the compulsory insurance of employees, or the minimum age for the employment of children, modify individual freedom in every instance in the interest of the group as a whole. It is so with compulsory education. Inevitably, legislation requiring parents to send their children to school limits the rights of these parents with regard to the control of their own children. Obvious though this may seem to us, it has not always been so. The right of the parent over the child has in some ages and in some civilizations almost approximated our present concept of property rights.

This right of the State to compel school attendance is now so well established in America that a theoretical discussion of its basic soundness would be a waste of space.¹

¹ And yet a note in *School and Society* for March 18, 1922, records the fact that the Amish bishops of Geauga County, Ohio, entered protest against the provisions of the compulsory education law of that State. School "separates their interests from the farms," complained the bishops.

Within the century we have traveled the path from almost no educational provision to compulsion, by the stages of non-governmental philanthropic provision, the struggle to induce the State to provide even the rudiments of education, complete provision for education through at least eight grades, and at last actual compulsion in every State requiring that children take advantage of the opportunities provided, for a number of years.

The character of this compulsion in the several States. —The degree of compulsion as represented by the number of years required, and the proportion of each year which the child must attend school, are almost as varied in American States, as is the very school opportunity itself, and the character of the efficiency of the American schools. The struggle for adequate compulsory education legislation and for the effective administration of such legislation must be carried on, not so much against the inability of the community to support schools, or against its unwillingness to provide some opportunities for every class of children, as against those private interests, which in some sections of the United States seem to feel that the industrial well-being depends to-day almost as much on the exploitation of the labor of children as it once did on that of slaves.

Against this determined opposition to the extension of education in certain sections of the country, even Federal legislation brought about by agencies which are deeply interested in the welfare of children, has so far proved ineffective. Two statutes enacted by the American Congress under the interstate commerce clause of the Federal Constitution have in turn been declared uncon-

stitutional, as a result of litigation initiated by these interests.

In a recent study made by the Federal Children's Bureau² of conditions in the sugar-beet fields of Colorado, it was found at the time the study was made that 1077 children under sixteen years of age were employed in the area under investigation—parts of two counties. Four-fifths of the children were under fourteen years of age, more than one-fourth were under the age of ten years, and a number had not reached the age of eight. The educational handicap of the beet-working children was shown by the fact that more than forty per cent. of those between the ages of nine and sixteen included in the study were from one to seven years behind in their grades. School records indicated that the progress of these children was inferior by 25 to 35 per cent. to that of the unemployed children attending the same schools.

That no section of the country is unanimous in a point of view which favors depriving children of educational opportunities, may be noted from the following comment of the Bristol (Virginia) Herald Courier on the decision of Judge Boyd, declaring the second Federal law unconstitutional:

"Humanity called for the enactment of such a law so that children of tender years might have their days in which to play and grow and acquire the rudiments of an education. Whenever such an enactment was proposed by the legislature of any State, in the South especially, the mill men of the State would hurry to the capital to protest and to urge with all the influence in their power that it would mean their ruin, unless a similar law were

² Summarized in *School and Society*, Vol. XIV, p. 454.

enacted in States with like manufactories. This method was successful, until its proponents brought the matter up in Congress, and then their winning argument was gone, for the law applied to all States alike. Undoubtedly the present law may be cured by amendment wherever it conflicts with the fundamental law of the land . . . and children everywhere in this country will be protected from industrial slavery and no longer be coined into unholy profit for rapacious manufacturers.”³

Length of the compulsory period.—It may be said in general that the present American tendency is to make school attendance compulsory from age seven or eight to age sixteen.⁴ Some thirty-five States now set age sixteen as the period up to which the child shall attend school, although in almost every instance exemption is provided for children who have attained a certain minimum of education, and whose assistance is urgently required. Other States set even higher standards: Maine and North Dakota require attendance to age seventeen. Utah and Oklahoma set the age as high as eighteen, the latter requiring completion of the eighth grade as a condition precedent to exemption from school attendance below that age.

Some of the States have provided for compulsory continuation work up to age eighteen for persons who have not reached certain standards above those required for exemption from full-time attendance, and even a higher age for persons who are totally illiterate. An in-

³ Reprinted in the Elementary School Journal, Vol. XXII, p. 247.

⁴ Statements in this section are based on the chart entitled, State Compulsory School Attendance Standards Affecting the Employment of Minors. U.S. Dept. of Labor. Children's Bureau Chart Series No. 2, Jan. 1, 1921.

teresting example of the current tendency in progressive States—an extreme provision whose wisdom may, indeed, be questioned—is the requirement of the State of Utah that alien adults who do not possess such ability to speak, read, and write English as is required for the completion of the fifth grade, must attend evening school so long as they are under age forty-five.

As against this advanced legislation it is to be noted that the State of Arkansas requires attendance only to age fifteen, while attendance up to age fourteen is still provided for in Delaware, the District of Columbia, Georgia, Louisiana, North Carolina, South Carolina, Texas, Mississippi, and Wyoming.

Modifications of the requirements.—But the length of the compulsory period alone, is an insufficient index to the character of the compulsory school legislation of any State. Assuming, for the moment, the efficient and bona fide administration of the law, two important modifying factors must be considered: The minimum amount of attendance required within each year, and the provisions for exemption from the operation of the law—some such provisions are always found—are factors which may nullify apparently satisfactory statutes.

The mere fact of the number of years required is not a sufficient index of the character of any compulsory law. In order completely to understand the effectiveness of such a law, even assuming completely efficient enforcement, one must examine the minimum attendance required within each year. In the State of Georgia, for example, which provides for six compulsory years of schooling—from eight to fourteen—the minimum requirement is six months. The total compulsory period

of education is therefore thirty-six months, a period of time which in ordinary city schools means four years of elementary-school education. But this minimum is excelled in South Carolina, which in the same six-year period provides for a minimum attendance each year of eighty days. The multiplication of eighty by six indicates that the minimum requirement of education for children in that State consists of four hundred and eighty days. Judged by standard cities, which consider two hundred teaching days the minimum for one year, the State of South Carolina provides a compulsory period of less than two and a half years of standard instruction for its children. Even judged by the lower standard of the country at large in which "the average term provided is 160.7 days"⁵ South Carolina demands of its children a degree of education equivalent to the completion of the third grade.

The State of Mississippi now has legislation requiring attendance from ages seven to fourteen, and makes this same maximum provision of eighty days' attendance, but provides a means whereby individual counties may exempt themselves from the operation of the law. Four counties, two of them bearing the names of Franklin and Jefferson, have so far, by ballot taken within the county, availed themselves of this privilege.⁶ Even this state of affairs seems to be an advance in the State of Mississippi; for in the school year of 1917-18 Mississippi's attendance requirements were still limited to forty days instead of eighty as at present.⁷

⁵ U.S. Bureau of Education Bulletin, 1920, No. 11, p. 12.

⁶ Correct as of Dec. 13, 1920. See Children's Bureau Bulletin referred to above.

⁷ U.S. Bureau of Education Bulletin, 1920, No. 11.

The State of Maryland, outside of Baltimore, requires attendance at school between the ages of seven and thirteen; and the State of Virginia between the ages of eight and twelve. In this State the number of weeks of attendance required within each of the four years is sixteen, a number which, even assuming that there are no school holidays and that the child is actually subjected to instruction on every school day of every one of the sixteen weeks in every one of the four years during which he is compelled to attend school by law, makes a total of three hundred and twenty days—time sufficient to attain second-grade efficiency, judged by the average length of term in the United States, and less than is required to attain such efficiency in standard American cities, which consider two hundred days of actual teaching a minimum school year.

While it is clear that the Federal government will probably never control the actual conduct of education in the United States, it seems equally certain that the time has arrived when its influence should be extended in the direction of equalizing, to some extent at least, the school opportunities of American children. The variation in quality of opportunity offered, between that available in the most progressive cities and that to be secured in the rural counties of some of the Southern States, ought no longer to be totally ignored.⁸ In many instances the grounds for exemption are so numerous and so liberal as, in effect, to nullify the law.

Five basic problems of compulsion.—We have been discussing the compulsion which the State brings to bear

⁸ See J. A. H. Keith and W. C. Bagley, *The Nation and the Schools*. (Macmillan, 1920.)

upon the individual and, in addition to the disparity of opportunity inherent in our type of political organization, we have noted these problems: (1) How many years shall the child be required to go to school? (2) On the assumption that the law should not be applied equally to all children, under what conditions shall some be exempted from its operation? (3) What number of days or weeks shall constitute a minimum school year? Two other problems may be noted: (4) Shall compulsory education be State-wide in its operation, or shall local communities within the State be allowed to modify the law—either by adopting compulsory legislation or exempting their territory from such provisions? (5) How shall the law be enforced as against both recalcitrant parents who do not send their children to school, and recalcitrant communities which do not provide school facilities in compliance with the State law?

Two basically different methods of control.—All of these five problems are of fundamental importance. None of them have been settled in America with any degree of finality. Their solution is nominally in the hands of persons without the technical experience and training to settle them—the legislatures of the various States. Without going into the details of governmental science, it may be pointed out that there are two possible methods of governmental control. Under one method, the legislature creates a corporate commission to manage or supervise a set of human relations of great intricacy, and gives this commission broad discretionary powers, which are, in effect, powers to legislate as occasion may arise. The Public Utility Commissions of the various States are examples of this type of legislation. They have the

power to make, modify, and annul rulings as situations arise. This type of control has at least two outstanding advantages: Provision is made for flexibility and ready adjustment to situations as they arise, and arrangements are made for the employment of technicians and experts who are in a position to give advice of an exact professional character to those charged with administration. It is obvious that the Congress of the United States, from which the Interstate Commerce Commission derives its power, would find itself incapable of carrying on effectively the work of that Commission.

On the other hand, there is the type of legislation which undertakes to provide in detail, once and for all, a set of regulations covering all contingencies that may arise. Where the situation to be dealt with is simple and clear-cut, as for example, the salary to be paid to the governor of the State, the legislation is effective. Where the situation to be dealt with is complicated, as for example compelling children to attend school, such legislation is in the nature of things, ineffective. The fundamental cause for this ineffectiveness is found in the fact that whereas legislation tends to be uniform, life tends to be complex. The legislature, for example, with great ease and apparent clarity passes an act requiring all children to attend school from age seven to age sixteen. But the facts in the case are that a totally deaf child cannot be given the rudiments of education in that period, and for him the compulsory age should be higher, whereas a low-grade moron has little to gain by staying in school so long, in many cases his presence there represents a menace, and for him the period might well be shorter—he should become a producer at an earlier age.

There is little object in urging the legislature to change the law. In the first place the process is slow; in the second place it involves a preliminary period of educating the legislature; in the third place there are not always at hand public-spirited groups to devote time and energy to initiating legislation and lobbying for it; and, finally, *by the time the legislation is enacted it may be antiquated.* Scientific information may be just one step ahead.

Less legislation, more discretionary power.—There is too much educational legislation on the statute books of the American States, and the legislation regarding compulsory education is an excellent example of it. Every statute in the country shows distrust of the regulations contained therein, by numerous provisions for exemption. The provisions are detailed. In some instances they operate unjustly where indulgence would not be necessary. In some instances they fail to meet situations where indulgence would be just. We need, in the place of detailed legislation, expert commissions or boards with broad discretionary powers and facilities for the employment of experts and for the making of flexible changes to meet situations as they arise. Education is a complicated process whose principal characteristic is the absence of uniformity in children and in procedure. Legislation of a general character is necessarily uniform. Less detail in the laws and more discretion in the hands of State Boards will undoubtedly tend to speed educational advancement. In the field of education, administrative Boards and officers should be charged not so much with enforcing laws as with improving education. Changes and modifications to conform to new situations and new

ideals should be made easily, rapidly, on the advice of experts—without invoking the cumbersome processes of legislation.

Sound principles for compulsory education regulation.

—We may now return to our five problems; namely, (1) the number of years the child should be required to attend school; (2) what differences should in this regard be made between children; (3) what number of days or weeks shall constitute a minimum school year; (4) whether compulsory education shall be State-wide in its operation; and (5) how the law shall be enforced as against recalcitrant parents and communities.

With the question of enforcement—the fifth problem noted—we shall deal in the section that follows. The fourth problem would seem to require little discussion. Shall compulsory education be State-wide in its operation, or shall local communities within the State be allowed to modify the law—either by adopting compulsory legislation or exempting their territory from such provisions?

The privilege of local option in education, a privilege exercised in many States, and in each direction—both to extend the period or provide for compulsion, and to exempt the community from the operation of the law—seems, on the face of it, unwarranted. Evidently these provisions represent the price paid for permission to enact the law. On the face of things this legislation seems vicious and unwarranted, deliberately aggravating within the States inequalities already existing on the basis of uneven distribution of wealth and the geographic and population unevenness of the local districts of school control.

We come then, to the first three problems: How many

years shall the child be required to go to school? An examination of the statutes shows a general feeling that the longer the period, the better the provision. But accurate information as to the ultimate goals desirable, on which to form a scientific basis for the regulations, is lacking. The most advanced statutes are based on humanitarian rather than scientific ideas. Regardless of all other differences, they always have this in common—they operate uniformly, and affect all children alike.

But the question may very well be raised whether uniformity of treatment is the best way of handling the compulsory education problem. The constitutions of the States usually contain provisions against what is known as "class legislation," so that statutes, to be valid, are required to be non-discriminatory. But nature is not bound by any such limitations, and the race is not characterized particularly by identity of endowment either mental or physical.

In simpler ages, when less discrimination was necessary or, indeed, possible, uniform legislation was less obviously out of place. But to-day, when we can with some degree of accuracy grade the population from idiocy to very high endowment; when the deaf, the blind, the crippled, and the anemic, the potentially delinquent and the genius, require differentiation of educational treatment each on the basis of his own handicaps and advantages, uniform non-discriminatory legislation which carefully observes the constitutional prohibition against class legislation will seem about as apt as would uniformity of provision in the size of shoes or of diet.

The very lack of uniformity of conditions and requirements with the consequent demand for adaptation, calls

for less legislation and more power in administrative boards. Such a question, for example, as the length of the compulsory period involves a detailed study of the time for admitting children to school. Age six is the merest tradition. Some children are ready for school at an earlier age, and others should not enter until later. There are better criteria for school readiness, and these will have to be discovered.

It is obvious that there are certain discoverable factors operating in determining the child's readiness to enter school. These are of at least two kinds, physical and mental. On the physical side, there is necessary at least a certain degree of stamina which will in future be somewhat determinable in terms of physiological age, and the possession of certain habits that make the child able to care for himself in the group. On the mental side, it is necessary that the child shall have attained speech, the ability to act with a group larger than the family circle where he has been receiving undue attention and indulgence, that he shall have attained a certain mental age, and, in general, that he shall have reached the end of the period of effective home training and education. Whatever else may be said of these factors, it is at least clear that they do not operate uniformly. The very large proportion of all first-grade children who fail of promotion proves the point. Some scientific basis for the beginning of school must be determined, more useful than the easily administered criterion of chronological age.

Practically the same lack of uniformity characterizes the other end of the compulsory-age period. How long shall children stay in school? The naming of one age applicable to all is too easy a solution. From the physio-

logical point of view, what is the number of years during which every child should be free from participation in productivity? From the economic point of view, for how long a period can our society afford to provide leisure for youth, to serve as a period of preparation? From the point of view of the duration of human life, what is the period beyond which preparation, even for the most highly endowed, begins to pay diminishing returns, because of the shortness of the effective productive period of living that remains? From the psychological point of view, what is the effective period for each of the classifications? This consideration obviously lends itself to discrimination. A fixed period may be wasteful for the very dull and too short for the very bright. Uniformity in the face of patent discrepancy of nature is not democracy; it is stubborn conservatism. Democracy requires equality of opportunity. Equality of opportunity means scope for utilization of ultimate capacity. A uniform period which is too long for the dull and too short for the gifted is about as democratic and just as a symphony concert that is not finished, but is open equally to the deaf and to the hearing.

Legislatures are not in a position to settle these questions. They belong to the educational profession. Their solution should never be final and binding until changed through cumbersome processes. Administrative bodies should regulate them and maintain flexible rules, responsive to the advancement of knowledge.

Minimum School Year.—What number of days or weeks shall constitute a minimum school year? Here again we face complicated questions which no set of legislators can answer and which, no matter by whom an-

swered, should not be finally settled in fixed forms difficult to alter. Ultimately the answer will depend on the amount of time found to be necessary for the accomplishment of the work set. The length of the school year, which may differ for different sections of the school population, the length of the vacations, the length of the school day and the length of the effective period of instruction, are at present largely unsolved problems.

II. The Administration of Compulsory Education

We come finally to the problem of the administration of the statutes as they exist. Compulsory education legislation has two distinct phases: It is directed against the individual, who is required to avail himself of the opportunities offered; it must also be directed against the local communities, which in America actually control, provide, and maintain schools. Legislation directed toward the individual would be of no avail if the local community failed to comply with the statutory requirements in the matter of providing minimum educational facilities. Investigation would probably disclose that educational authorities in the American States have not been extraordinarily alert in the compulsion of reluctant school districts. Much is to be desired in this direction. Indeed, complete compliance with compulsory education laws will probably never be brought about until their administration becomes a State-wide function directly carried on by State authorities.

It is clear that mere legislation rarely insures execution of statutory provisions. There are many so-called "dead-letters" on the American statute books. Very frequently non-governmental agencies are alert in compelling the

ordinary authorities actually to enforce laws, which without their urging might remain mere form. In America many child-welfare agencies interest themselves in the enforcement of laws respecting children; but these agencies find it impossible to function within every State and within every district.

State-wide enforcement machinery essential.—There has ordinarily been provided no means of enforcement outside of the actual school district, and within a district it has usually been left to the school authorities to see to the compliance with the law. City school districts, and in rural communities organized on the county unit plan county boards of education, have been more or less efficient in enforcing compulsory education laws; but districts which are not particularly interested in the enforcement of such laws have been left almost without pressure except in so far as the distribution of State funds is almost everywhere made on the basis of actual attendance rather than mere school population.

This discrepancy in the enforcement of the law even within given States ought to be eliminated by making the enforcement of the law definitely a State function. The status of compulsory school law enforcement may be noted from the following quotation taken from a recent statistical study: "Twenty States have over one-fifth of the children of school age out of school. . . . In one State, Louisiana, forty per cent. of the children are not enrolled in school."⁹ These figures take on an even worse aspect when it is recalled that cities are ordinarily more efficient than rural districts in bringing the children into the schools. The percentage for country dis-

⁹ U.S. Bureau of Education Bulletin, 1920, No. 11, p. 7.

tricts is quite probably greater than that quoted. It is for the sake of the children in rural communities particularly, that State-wide compulsion should be directed both against the local communities, compelling them to comply with minimum legal requirements and against parents and guardians, compelling them to give children the minimum benefits provided by law. Control merely by distribution of State funds is not enough. The establishment of State-wide administrative machinery for enforcing the compulsory education law is to-day one of the most urgent needs in the nation-wide effort to eliminate illiteracy, to raise the general standard, and to exploit the resources of intelligence. Figures recently published illustrate this point:

The degree of variation in the enforcement of compulsory education laws is as marked among the States, as in every other phase of education. In a statement issued by the Census Bureau,¹⁰ compiled from the returns of the Fourteenth Decennial Census, taken as of January 1, 1920, we find that the total population seven to thirteen years of age, 15,306,793, included 13,869,010 children attending school. The largest proportion of school attendance for this group, 96.1 per cent., is that for Massachusetts and the smallest, 75.9 per cent., for Louisiana. In seven States—Massachusetts, Rhode Island, Ohio, Iowa, Delaware, Idaho, and Utah—the proportion was 95 per cent. or more.

It has been seen that in actual practice as it has been evolved in American schools, it is the function of the school not merely to teach the child who comes to it for that purpose, but to bring the child into the school as

¹⁰ Summarized in *School and Society*, Vol. XIV, p. 428.

well. Ordinarily there is no other way provided for enforcing the law. Every individual teacher ought to bear in mind always that the effort to secure educational opportunities for every child is part of his professional obligation; a part as important as actual instruction.

The American school is no longer a mere means of giving instruction. To an ever greater degree it has become the trustee to whom is confided the welfare of American childhood. Every teacher must assist in, and agitate for, the literal and universal enforcement of existing compulsory education laws, as well as the extension of such laws in sections of the country where the present legislation is quite obviously not in accord with the modern social conscience.

Large units, such as cities, ordinarily concentrate the work to be carried on in conforming to this responsibility, in attendance departments. These departments are charged with the work of dealing with the problem of non-attendance. They normally see to the maintenance of the continuous census, studying the discrepancy between it and the actual attendance; they administer the provisions for exemption from the operation of the law, issuing work permits in proper cases; they supervise any disciplinary classes or parental schools that may be maintained for incorrigibles and truants; finally, they carry on the daily routine of enforcing the compulsory school laws. By means of established routine, they are notified of protracted absence and make investigation to determine the cause. Wherever possible they effect remedies and return the child to school. But not all failure to attend school is truancy; not all causes of absence are remediable by invoking the State's law-enforcing machinery. The at-

tendance department therefore is not merely a department of force; it is as frequently a department of social service. By coöperating with relief agencies it aids as often as it threatens and punishes. But it is an executive department. In the nature of things, it rarely studies fundamental causes.

Rural districts, on the other hand, ordinarily have no such instrumentality for enforcing the compulsory education laws. The situation simply resolves itself to this: The State passes a law but does not accompany it with appropriate enforcement machinery of a State-wide character. Legislation of this sort in other fields, as for example the prohibition of the manufacture and sale of alcoholics, would probably not prove highly effective in achieving the desired end. The ordinary law-enforcing authorities either in the city or in the country pay little attention to the compulsory education legislation except in specific instances when their attention is forcefully called to individual cases. In the cities, the school authorities themselves simply direct some of their energies to law enforcement. They go out after the children whom they are expected to teach. In the rural districts, organized in the form of independent local units of microscopic dimensions, no such organized effort to enforce the law exists. Poor as the showing for Louisiana is, it unquestionably would be much worse if the figures for the State with New Orleans excluded were available.

Here is another example of discrepancy of educational opportunity within the State, operating against the non-city child. The demand is for State-wide machinery to enforce the compulsory education ideals of the commonwealth not only against the parent and guardian, but as

well against the local community which is not living up to the letter and the spirit of the law.

III. Truancy and Incorrigibility

The causes of nonattendance.—What are the causes which operate to bring about the conditions of nonattendance described above wherein the discrepancy between the population census and school attendance in twenty States is shown to be as large as one-fifth, and in one State to reach the amazing figure of two-fifths? Why are these children of school age not found in school? Many explanations have been offered, but almost no scientific study has so far been made. The discrepancy may perhaps be attributed to four principal causes; namely, (1) lax administration of the law; (2) indifference or poverty of the parents; (3) employment furnished by those who are interested in exploiting child labor; (4) that deliberate and unnecessary evasion for which the child alone is responsible, and which is ordinarily referred to as truancy.

Fundamental to the execution of the compulsory education law is a system of child accounting based on the census of the population of school age. We cannot enforce the law until we are in a position to know how many children there are to whom this law applies. Any census that may be taken begins to be antiquated and out of date almost the moment it is completed, and grows continually less reliable with the elapsing of every month. The remedy for this is a continuous census. Efficient school attendance departments are devising methods whereby, through the coöperation of many agencies, and the checking and rechecking of many sources of informa-

tion, a reasonably complete and reliable census of that part of the population which is subject to the operation of the compulsory education law is always at hand.

With the census in hand, the next step, also a continuous one, is to account for these children. The measure of the efficiency of the enforcing agency, where methods for maintaining a census are employed, is very simple. The smaller the discrepancy between the census and school attendance—in other words, the smaller the percentage of the unaccounted-for group—the more efficient the administering agency. We have not yet worked out forms for judging the efficiency of attendance departments. We do not yet know what percentage of the entire population the unaccounted-for group ought to be. In practice, as we have seen, it ranges in the case of children under thirteen years of age from less than five per cent. in Massachusetts to more than twenty-four per cent. in Louisiana.¹¹

Accounting for the child population.—In accounting for children shown by the continuous census to be subject to the school law, we find (1) a group that is attending public school; (2) a group that is attending private school; (3) a group that is debarred from attending either public or private school by reason of physical or mental incapacity; and (4) a group that appears to be evading the law. It is evident that this process of accounting cannot be carried on without the coöperation of the private schools. Such coöperation requiring parochial and other private schools to deal with the public authorities in the matter of attendance has been made compulsory

¹¹ See summary of last decennial census figures in *School and Society*, Vol. XIV, p. 428.

in some States and ought to be made compulsory in all. Every phase of the service of the attendance department ought to be at the disposal of private schools.

The unaccounted-for groups.—In dealing with the unaccounted-for, or evading, group, children may be divided roughly into three classes: We find, first, the group whose evasion is deliberately fostered by adults, whether they be parents or employers or other adults bent on inducing anti-social acts. In such cases it is the business of the enforcing agency to invoke the operation of the legal machinery provided by law for the enforcement of school attendance, whether such machinery be juvenile or other courts, or whether the official charged with the prosecution be the district attorney or the probation officer. In dealing with this group it is the fundamental duty of the school to invoke the aid of the courts and of the law-enforcing authorities to compel adults to refrain from keeping children out of school.

A section of this law-evading group will be found to be kept out of school by the operation of sheer poverty—lack of clothing, lack of food, inability of parents because of negligence or stupidity, or employment of the mother during the day. Such children must be rescued from these conditions, whatever they be, and must have their education safeguarded. In dealing with this group, the law-enforcing authorities ordinarily coöperate with the social-relief agencies of the community. Aid may be provided; the children may be recovered from the care of incompetent parents, and every case should be followed until the child is returned to school.

Truancy.—The third group, finally, consists of the truant. The causes of truancy and the characteristics of

the truant are, scientifically speaking, little known. While we have a comparatively extensive literature on the subject of nonattendance,¹² we have almost no reliable scientific information. Many reasons for truancy have been hazarded, but a perusal of the literature will indicate that in this field we are just emerging from the status of sentimentalizing, and the general assumption that all children would be good if they were made happy.

Some interesting information may be gained from the study of one hundred truants recently carried on in Philadelphia, and reported in a Bulletin of the Bureau of Education.¹³

This study would seem to indicate: first, that truancy in cities at any rate is almost exclusively a boy problem, that it may begin as early as age eight, that it becomes prominent at age ten; that from this point it advances steadily to age twelve, and is likely to be most acute between ages twelve and fourteen. More than one-half of the children reported in this study were truant between these ages.

These figures are interestingly confirmed in a study made by Dr. J. Harold Williams of twenty-one boys committed to the Whittier State School in California, whose primary offense was chronic truancy.¹⁴ In this group two boys began their truant habits as early as age nine; eleven boys—more than one-half—became offenders between the ages of twelve and fourteen; and the median age, thirteen,

¹² See bibliography in the 15th Yearbook of the National Society for the Study of Education, Part II.

¹³ U.S. Bureau of Education Bulletin, 1915, No. 29: J. S. Hiatt, The Truant Problem and the Parental School.

¹⁴ The Intelligence of the Delinquent Boy. Journal of Delinquency, Monograph No. 1.

corresponds with the age of the largest number of truants found in the study reported above.

Some interesting information was gathered in the Philadelphia study regarding grade location. The group was decidedly a retarded one and the greater the over-age, the more troublesome the person. Fifty-one per cent. of this group of children were more than three years behind the grade normal for their age, and twenty-one per cent. were retarded five years or more; only six per cent. were at grade. It would seem that this showing could have only one possible significance; namely, that low intelligence is a most important factor in inducing truancy. It is now almost universally conceded that the most fundamental cause of retardation, particularly aggravated retardation, is low intelligence.

In view of this finding, it would seem inescapable that the first and most important step to be taken in the study of truancy is the giving of psychological tests to all truants. In cases where feeble-mindedness or dullness far below average is found, no further cause need be sought, the child being evidently out of place in the school as ordinarily organized, and incapable of adjusting himself to the ordinary school situation. The parental schools should avail themselves of the information so readily obtainable in regard to the intelligence status of the children committed to their care. This information is probably the most important fundamental index to the cause of truancy and the character of treatment required.

In a recent study covering a large number of subjects and a rather extensive territory, the writer states it as one of his conclusions that "environmental influences

more often caused a child to stop attending school than did lack of ability to do the work." "It has been suggested," he says, "by some who give large stress to the factor of heredity that the environmental factors measured here are merely an objective expression—a resultant—of the heredity of these homes.¹⁵ However, he does not believe that his facts lead to any such conclusion. This inference would nevertheless seem to be in line with the Philadelphia study referred to above and is even more interestingly confirmed in the report of another study¹⁶ conducted in New York City, and including one hundred and fifty cases.

In this instance an intelligence test was given to every child, and it was found that forty-three per cent. were "actually feeble-minded" and eight per cent. were border-line cases, showing a total of approximately one-half of all the truants studied below average intelligence.

In Dr. Williams' study of twenty-one truants referred to above, ten cases were found to belong to feeble-minded and border-line status, and to be defined as below normal. In view of the scanty data in these studies no conclusions can yet be drawn; yet it is an interesting coincidence that the proportion of one-half is maintained in both. Dr. Williams found a single child of better than average intelligence. The median intelligence of his group of truants was I.Q.84. Oddly enough, none of these mental defectives, with one exception, were found in ungraded classes which are provided for the education of the feeble-minded.

¹⁵ C. E. Holley, *The Relationship Between Persistence in School and Home Conditions*. (15th Yearbook of the National Society for the Study of Education, p. 98.)

¹⁶ E. A. Irwin, *Truancy*. (Public Education Association, 1915.)

It is unfortunate that the New York study does not indicate the intelligence status of the forty-nine per cent. found to be of an intelligence above the border line. It would be interesting to know what the frequency of truancy would be in children of better than average intelligence. One feels inclined to believe that the percentage would be almost insignificant. After all, truancy is a rather vague, undirected, and unplanned sort of thing. The superior child who became dissatisfied with school would probably be likely to engage definitely in some other occupation or enter some school that pleased him more.

It would seem hard to doubt the probability that poor intelligence is a major cause of truancy, very likely accounting for fifty per cent. of the occurrences. In reporting "an investigation of children under Council Supervision" conducted by the Society for Experimental Pedagogy in Denmark,¹⁷ Professor Tybjerg gives the following facts regarding those children, who "are criminally or morally corrupt." As regards the seven hundred children studied, "it was found that the critical age . . . is thirteen to fourteen years for the boys, and fifteen to seventeen for the girls." More than fifty per cent. of the group received the lowest intelligence rating, "poor," and less than two per cent. received the best rating, "excellent."

While the word truant is not synonymous with "criminal or morally corrupt," a classification which included offenders of various kinds, and while the intelligence status of the group is not indicated in quantitative terms, the evidence is, nevertheless, significant in view of its confirmation of the critical age and the probable intelli-

¹⁷Journal of Educational Research, Vol. IV, p. 307.

gence of truants, as indicated in the three foregoing studies already referred to.

Finally, it may be permitted to quote a student well entitled to a respectful hearing: "The problem of truancy is also one in which feeble-mindedness is involved. Many a school child becomes a truant because he cannot succeed in school. We need careful tests of the mentality of truants. One such study shows upwards of eighty per cent. of them feeble-minded."¹⁸ This group does not need any of the treatment that has been advocated in the literature, nor is the school to blame for their delinquency. They require the special treatment, preferably institutional, that is scientifically indicated for feeble-mindedness.

It is somewhat aside from the direct issue, but interesting to note the revelations and, it is to be hoped, the revolutions, resulting from our present reliable method of detecting feeble-mindedness. Binet began the process by finding the feeble-minded in insane asylums, where they certainly did not belong. More recently they have been discovered in penal institutions, such as reform schools, in orphan asylums, and in homes for adult dependents. The studies above referred to probably indicate that we may now look for this same group in the parental schools maintained by cities for the treatment and cure of truancy.

Obviously so far as this group is concerned, severity of discipline and change of home environment are not likely to effect the desired change. It would seem clear that an intelligence survey of every parental school in the country ought to be made, the feeble-minded located

¹⁸ H. H. Goddard, *Feeble-mindedness*, p. 18. (Macmillan, 1914.)

and given appropriate treatment. This done, there still remains an important group whose intelligence is average or better. The causes for the delinquency of this group of incorrigibles are little known. Undoubtedly poor home conditions are important in failing to restrain, as good home conditions do deter, certain of the tendencies that manifest themselves during early adolescence. More accurate data are needed in this field.

Summary

The right of the State to compel parents to send their children to publicly supported schools, or give them equivalent opportunities, may now be assumed. But, while there is no concerted opposition to this legislation on the part of parents, certain industries which employ child labor make determined opposition to the extension of the compulsory school period.

The age to which children are required to attend school varies in the American States from twelve to eighteen, thirty-five States naming age sixteen as the ultimate age to which full-time attendance is compulsory.

But the length of time required is an insufficient index to the efficacy of any given statute. The character and number of the exemptions from the operation of the law that are provided, and the minimum number of days or weeks of attendance each year that are required, constitute important modifying factors.

Five important problems awaiting solution in this field may be summarized as follows: (1) the length of the compulsory period; (2) the character of the exemptions to be allowed; (3) the minimum period of attendance to be required each year; (4) the desirability of local option for counties or smaller divisions; (5) the enforcing of

the law as against (a) children and parents, and (b) recalcitrant local communities.

As regards the first three of these problems, the statement is made that scientific basis for the final solution of these questions is lacking, and that the legislatures are not proper bodies to work out these solutions. The suggestion is made that legislation, which is slow, cumbersome, and tends to uniformity of practice where diversity is needed, be replaced by Boards or Commissions possessed of broad discretionary powers and charged with legislating in the field of education as well as with the duty of administering such legislation.

Local option in the matter of compulsory education seems to be a vicious practice tending to aggravate already existing disparities of educational opportunity within the several States.

Finally, in the matter of enforcement, the suggestion is made that enforcement of compulsory education legislation against local communities must, and against individuals should, be a function of the State. Until this becomes the practice, the rural districts add to their other disadvantages that of failing to enforce the law as well as the cities, where special departments for the purpose of compelling compliance with the law are ordinarily found.

There is always discrepancy between census and attendance, and the reduction of the percentage of non-attendance to the minimum is the business of the school. When the group receiving instruction in privately maintained schools is accounted for, it will be found that non-attendance is due to (1) lax enforcement, (2) indifference or poverty of parents, (3) exploitation of children by other adults, and (4) truancy.

The first three causes may be increasingly eliminated

by constant vigilance. The fourth cause, truancy, presents an educational problem.

The opinion is hazarded in this chapter, on the basis of four studies referred to, that in fifty per cent. of all the cases, truancy is due to feeble-mindedness, and this group should be given treatment appropriate to that intelligence status. As to the other fifty per cent. the causes may be guessed with some degree of certainty; but with scientific accuracy they are not known.

Problems

This chapter deals with a number of challenging problems, none of which have been finally solved, all of which require the application of scientific procedure to the field of education.

1. At what age should children be required to attend school and for how many years should they be required to continue to do so?
2. Should the requirements be uniform? If not, on what basis should the discrimination be made?
3. Should the requirement be in terms of years or in terms of accomplishment?
4. Should economic considerations be permitted, as they now do in many States, to secure exemption from the operation of the law? If so, should there be an irreducible minimum representing a relationship of age and attainment, and what should this index or quotient be?
5. On the basis of educational experience and theory, what is the minimum number of consecutive days or weeks—term—necessary for effective work?
6. Make a comparative study of the compulsory law enforcement facilities of a typical rural county and a small city of equivalent population in the same State.

7. Outline the organization and the work of an Attendance Department for a city.

8. Discuss the desirability of having the State take over all the duty of enforcing the compulsory education law. If you come to a conclusion favoring that arrangement, outline a form of organization, and detail the work to be done, including (a) a division to deal with local units of control, and (b), for purposes of routine, local branch offices—possibly associated with the county superintendents.

9. Make a local study of the causes of nonattendance, tending to establish a standard classification that may have general validity, within which to distribute the irreducible percentage of the child population who are not found in school.

10. Within the classification "truancy"—nonattendance originating with the child, and not materially induced by adults or uncontrollable situations—test the prediction made in the chapter that fifty per cent. of this group are below normal in intelligence.

11. Within the group of truants found by test to be of normal intelligence try to establish a standard classification that may have general validity, containing typical causes of truancy.

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CHAPTER VIII

THE PUPIL COMMUNITY—SOME NON-TYPICAL GROUPS

I. General Principles

Which is the normal child?—The concept of normality is probably very little distinguishable from that of typical or average. One needs only to think of Jonathan Swift's "Gulliver's Travels" to realize that normality is a comparative, not an absolute idea, and signifies conformity to the vast mass or average, which, after all, represents the characteristics that are "typical" and deviation from which makes the deviate non-typical. The very same person may be abnormally small, or abnormally large, abnormally wise or abnormally foolish, depending on whether the comparison is made with a Brobdingnagian or a Lilliputian. In this same way feeble-mindedness is a relative term, the fact of its existence depending not altogether on the mental make-up of the individual, but in part on the mental make-up of the group as a whole, who constitute the type. When, as part of the preparation for war, psychological tests were applied to large numbers of men and it was learned that the presumed average of intelligence had been overestimated, the definition of feeble-mindedness was automatically altered and certain quantitative indices which had hitherto indicated feeble-mindedness, now placed the individual in a higher class, i.e. dull but normal.

The problem of the non-typical.—All of which is to serve as an introduction to the educational problems involved in the fact that when a very large number of children are brought together for instruction, there are always found some who deviate from type in one or more ways, and therefore represent special problems. The ordinary way, historically, has been to do away with, disregard, ridicule, or at best be merciful to deviates. To the normal or average individual there is something almost uncanny about marked deviation from type, and he feels a revulsion towards it. Perhaps the furthest that our form of civilization approached toward humane treatment of deviates before a real attack on the problem which is so recent in origin as to be almost contemporary, was to treat such unfortunate persons with a considerable degree of Christian mercy and kindness. The sane, impersonal attitude, which might lead to a compensation of the handicap by education was difficult to cultivate among people who conceived of superstitious explanations for the occurrence of the facts. In an age when an insignificant proportion of the entirely typical part of the population was subjected to formal education, it seemed unnecessary to undertake to salvage by education the members of the community marked by some acute deviation, persons from whom at best might be expected less than the typical were capable of contributing.

With the arrival of the concept of democracy, and the ideals of compulsory universal education, these questions assume new aspects. The law requires that all children present themselves for education. The fact of the existence of large masses of children makes the practice of individual instruction, which might automatically take care of many deviates, an impractical process. The

method of simultaneous instruction is devised. Simultaneous instruction is based on the assumption of some, even though crude, homogeneity. This homogeneity is found in the most obvious characteristic—approximate similarity in age. The children are grouped in this manner, and minor variations of every kind, such as slight deafness, blindness, dullness, are taken care of in a variety of modifications of the procedure, in frequent reclassification of the groups, and in the common agreement that perfect evenness of progress, and equality of ultimate attainment are not to be expected.

But some children are totally deaf, or totally blind, or greatly lacking in intelligence. No amount of resiliency in the prescribed procedure can take care of these children. They cannot be subjected to the process of instruction at all, as it is organized for the typical group. And yet they cannot be disregarded. Democracy means equality of opportunity. We should not be acting in accord with our ethical and social ideals if we failed to educate those children who are not susceptible of treatment in the standard manner devised for the group.

Moreover, purely selfish motives operate to make society interested in the education of these children. Complete lack of education means, almost always, lack of ability in the matter of self-support. In our society, persons completely incapable of self-support are supported at the cost of the rest of the group. In so far as the type of education particularly adapted to the kind of deviation makes the recipient of this education self-supporting, in whole or in part, in so far is the community relieved from that burden. Ultimately, it is probably cheaper to furnish education than to maintain asylums.

In sections of the United States which are extensively

engaged in fruit raising and fruit shipping, methods are in vogue for the classification of the products of the orchards into groups that are normal, and for the discard of the comparatively small quantities that do not fit into any commercial definition of type. Oranges, for example, are rushed over screens containing the several holes which approximate the sizes of commercially usable fruit. As the fruit is forced over this screen, most of the oranges fall into these holes, each into its appropriate group. But some do not fit. They are too small, or occasionally too large. These are culls. In a democracy such as ours, which supports education liberally, and demands by law that all children be sent to school for a prescribed minimum number of years, the masses are subjected to a rather crude screen and classification, into which most of them fit. The poor of hearing, the partially blind, the dull, the physically under par, and others whose deviation is not very aggravated, find it possible to get through. The school admits them, and as the process of education becomes more and more effective, more and more supplementary provision is made for those who may find the pace severe. Instruction in the open air, the mid-morning glass of milk, school books with especially large type, and other features serve to make the road easier and the pace within their limitations.

But some of the children are culls. No sort of supplementary treatment will avail to keep them with the group. And the culls cannot be thrown away. They are human beings. It is the business of the schools to find ways and means to develop them to their utmost capacity. Systems do not exist primarily for themselves, but for the children. Where the children cannot fit into the estab-

lished system, the system must be changed and adapted to fit the child.

A theory for the education of non-typical children.—And so we come to the particular problem of this chapter, namely, the development of a theory for the education within the public schools of those children who in one or more ways deviate from the normal which, as we have seen, really means the average. In order to maintain oneself in modern society, it is only necessary to conform to the average in those characteristics, physical and mental, which characterize the vast mass of the population. Possession, in excess of the average, of powers which are useful in the race of life always represents additional capital with which the individual can, by proper use, secure for himself advantages superior to those enjoyed by the average individual. Possession of powers of this kind in quantity less than that possessed by the average of the population, means a handicap which, if not compensated for by unusual gifts of another type, or by education, or by the choice of an occupation in which the missing abilities play the least possible rôle, will deprive the person of the degree of self-support attainable for the average of the group.

We have said that persons who differ from the group in some way should be given opportunity for education to the utmost of their powers. *It is probably more accurate to say that the guiding motive in the education of these classes should be the reduction of the handicap to the lowest possible minimum.* Any person who deviates from the group, even if the deviation be so small a matter as left-handedness, learns in due course that his deviation represents a handicap. The left-handed person

soon learns that daily life is organized with a view to right-handedness. Life is, in fact, organized in terms of the completely typical. Since we cannot reorganize our mode of social intercourse to suit the particular physical or mental constitution of the varying physical and mental deviations, the fundamental principle applicable to every type of deviation must be the effort to minimize the handicap.

How true this principle is may be strikingly illustrated in the case of the very highly endowed, whose deviation consists of possessing, quantitatively, a great deal more than average intelligence. The possession of this degree of intelligence represents, since these persons cannot build for themselves a world of geniuses and must live in the one that exists, the danger of becoming socially abnormal. No teacher interested in the welfare of these children regards this danger with indifference. Deviation is, to an amazing extent, synonymous with oddity and peculiarity. The group represents the standard. For the sake of normal social development, students of the question of the education of gifted children would, under present conditions, actually retard the rate of progress and make it slower than is really possible, letting formal instruction wait until maturity catches up at least in part with the development of intelligence—all in an endeavor to preserve that very precious characteristic, social normality. The social psychologists pointed out long ago that deviation from the group means pain and suffering. The minimizing of deviation, therefore, to the lowest possible degree while preserving to the greatest possible extent the development of all the potentialities for rich, fruitful, happy, and profitable living—this is the problem of the education of the unusual child.

Which is the non-typical child?—When shall we regard a child as educationally exceptional? “Borrowing the phraseology of the law (of Connecticut), an exceptional school child is one whose mental or physical personality deviates so markedly from the average standard as to cause a special status to arise with respect to his educational treatment and outlook.”¹ This is a rough but entirely adequate description of the child whose education forms the problem of this chapter.

Many attempts have been made at the definition of the unusual child, but the safest procedure is to bear in mind the fact that there is no object in making definitions for their own sake, and that classifications are made for definite purposes, and may therefore vary as these purposes vary. For the shoe clerk, to take a homely example, most of the pupils of a school for the totally deaf are quite likely to be normal, and some of the children in the typical school, the reverse. He would have to re-classify the population from his point of view. Psychologists, sociologists, physicians, and all other students interested in the development of childhood, may make their own classifications.

The teacher needs neither intricate theory nor fine discrimination in this matter. He is not interested in classification as an end in itself. From his point of view, all children are typical who can be reasonably well taught with the group, even in cases where supplementary provisions are occasionally necessary to help them to keep up, or where frequent reclassification is necessary in order to relocate them in more appropriate groups. The child of defective vision or hearing who must be seated close to

¹ A. Gesell, *Exceptional Children and Public School Policy*, p. 15. (Yale University Press.)

the blackboard or to the teacher, the crippled child who must be assisted to get to school, but is susceptible of ordinary treatment when he gets there and who faces the average future, the undernourished child who needs milk, the immigrant child who suffers temporarily from a language handicap—these are, from the pragmatic point of view of the school, typical children. *They require special attention, not because of their peculiarities, but because of our system of simultaneous instruction.* The special provisions do not exist because they need a totally different kind of education, but because they need assistance in holding their own with the group.

Those children are exceptional or unusual, who cannot by any method of supplementary assistance be educated along with the typical group. The totally blind child can under no circumstances use the book which forms the medium of instruction, and the totally deaf child is at an equally great disadvantage. These children must be educated in a manner entirely different, and adapted to their varying handicaps.

The classification of non-typical children.—But it does not follow from the foregoing that these children cannot be taught in groups. On the contrary, they must be so taught in the first place for practical reasons of economy, and in the second place for those educational reasons which find special values in group instruction. We come then to the problem of classification of unusual children. In this connection, only those distinctions are of value which serve the purpose of grouping children into simultaneously educable classifications.

There being no established, universally agreed upon practice, the following grouping is proposed in the belief

that it will be found practical: Children who are unusual by the definition outlined above, are uneducable with the group for reasons that are primarily mental, temperamental, or physical. In a being whose organization is so complex as that of the human infant, causes are perhaps rarely single, and so it is well to emphasize the fact that the distinguishing characteristic is referred to as the primary and the most obvious and most marked variation. Under each of these three divisions there are subtypes to be noted, and a complete classification for our purposes may be tabulated as follows:

- I. Unusual children for reasons primarily mental.
 1. The most highly endowed group.
 2. The most poorly endowed group.
- II. Unusual children for reasons primarily temperamental.
 1. Incorrigibles and truants (except the feeble-minded).
 2. Speech defectives.
- III. Unusual children for reasons primarily physical.
 1. The deaf.
 2. The blind.
 3. The crippled.

This classification cannot stand without some explanation, particularly of certain omissions. Referring first to the classification for reasons primarily mental, the reader is asked to observe that variation may occur in two ways which, for convenience, may be referred to as vertical and horizontal variations. Let us consider the variations indicated in our classification as horizontal. In this sense, a purely quantitative one, implying a

greater or less amount of intelligence, we have deliberately omitted the feeble-minded. Since the members of this class, by the agreement of all students of the subject, should be colonized because they can never be made self-supporting and self-sustaining members of the community (at any rate outside of institutions), they are not properly a problem of the American public schools. They exist, but our classification is made for practical purposes of grouping the educable children who properly belong in the public schools. Feeble-minded children are unfortunately found in the day schools of all the cities. But they do not belong there. No person belongs in the public schools who by virtue of his handicap probably will not be able to participate, without supervision, in our modern society. The city schools are educating the future self-supporting citizens of the commonwealths.

Again, it will be noted that no fine distinctions are made under this heading. This conforms to the facts. From the point of view of the school, the average group is much larger than it is from the point of view of the psychologist. As has been stated, the average group includes all who can somehow travel the regular path, even those who may require more time or special assistance, and some for whom the work is too meager and too slow. *Those only are unusual who require actual differentiation of the educational process.* Of such there are two types, the very dullest of the non-feeble-minded and hence potentially self-supporting group, and the most highly endowed group. The classification is made although, as we shall see in a later chapter, the highly endowed group is at present to all intents and purposes unprovided for in the matter of completely differentiated education.

Finally, coming to what we have termed vertical variation, neurotic, neurasthenic, and psychopathic deviation from normal may occur at any point along the vertical line. It is as possible for the feeble-minded as it is for the highly endowed, to be insane. We make no provision in our classification for this type of deviation for the sufficient reason that this deviation does not present an educational problem. The classification is not made for its own sake, but in order to group children for purposes of instruction. The insane have no place in the public school. Therefore, they find no place in our classification.

In the group naming temperamental variation as the main cause, we find two classes, the incorrigible and the speech defectives. We have claimed in the preceding chapter that a large percentage of truancy and incorrigibility is due to feeble-mindedness or very low intelligence. The proper diagnosis of this group would bring them into our first classification, mental. Of the remaining number, these truants who are kept from school for social causes such as poverty, or the delinquency of adults, would, these causes removed, be located in the typical group. Finally, the real truants and incorrigibles probably vary for several reasons which may, for the present at least, be grouped under the term temperamental. The reasons for placing speech defectives in this classification will become clear when, later in this chapter, we study the causes underlying the defects.

The inclusions in the group of physical defectives are probably obvious. On the other hand, the failure to include some classes may need a word of explanation. Children who are anemic, tubercular, undernourished, and generally below par, present a school, but not an

educational problem. They need attention, but not special education. The care of these children has been given some attention in the chapter on the physical welfare of the pupil community. Effective remedies in these cases restore the children to the typical group. Even where no permanent remedy is effected, the educational treatment is not varied. Children in Eskimo garb on a school roof receive the same type of instruction as their more healthy fellows.

It remains, finally, to explain the omission from any section of our classification of certain groups usually included. Epileptics, like the feeble-minded, do not belong in the public day schools. Certain other types, as the immigrant, the children retarded because of illness or transfer, represent a temporary disadvantage. They are typical children who, given a little extra care to enable them to overcome their deficiencies, are soon restored to the large group. They are not inherently different. They do not represent a permanently special educational problem,—and that is the only ultimately worth-while test.

The several special problems.—We come now to a brief discussion of the problems of differentiated education presented by the various groups of unusual children. A discussion of the types classified under causes primarily mental is reserved for succeeding chapters on classification for purposes of instruction, and on the curriculum. Under the classification "temperamental," the incorrigible group were discussed in the preceding chapter. This leaves for discussion here, four types, i.e. speech defectives, the deaf, the blind, and the crippled.

II. The Education of Speech Defectives

Causes as related to remedial procedure.—“Speech, *per se*, as a faculty, is not innate in man; every human being is born speechless. The child gradually learns to speak, and unconsciously speech is developed with other bodily and mental faculties. While means of speech is possessed at birth, in its development it is subject to disturbances by disease or other causes. Speech is produced by the prompt coöperation of three great mechanical factors, namely, respiration, vocalization, and articulation, with which is associated mentation, or the action of the mind. Modern medicine and psychology have put to their credit a notable achievement by the demonstration that defective speech is at bottom *a mental rather than a physical disease*, where a definite defect of the speech organs does not exist. Children suffering from such a speech defect as stuttering are highly strung or sensitively organized. They are emotional, temperamental, and easily influenced.”²

“Modern medicine has put to its credit a notable achievement by its demonstration that defective speech is at bottom a pathological condition. . . . At the university clinic at Berlin it was definitely demonstrated by Professor Herman Gutzmann that *defective-speech children are sick children*. Lispers usually had some pathological condition of the peripheral end organs of speech. Stutterers usually had a central involvement which required extensive medical examination to diagnose and classify. A speech specialist of America bears out the pathological

² D. J. McDonald, Speech Improvement. (Proceedings of the National Education Association for 1916, p. 862.)

contention by citing that 97 per cent. of 1000 cases of stuttering that came under his observation had some pathological condition that required medical treatment; and in about 38 per cent. of the cases, surgical treatment of some form or other had to be resorted to. . . . The case seen was that of a child about nine years old who for two years never spoke above a whisper. On examination by means of the laryngoscope the true state of the vocal cords was revealed. An application of the internal faradic brush was sufficient to remove the anesthesia of the larynx.”³

And so the doctors differ, illustrating what to us is very important, namely, that we are pioneering in a new field. The pedagogues tend to agree with the idea that the causes are temperamental rather than pathological, and that, therefore, the treatment should consist of training, which belongs to the teacher, and not of surgery or medication, which belongs to another profession. “Experience has shown that in many cases a cure may be effected with comparative ease if the training is begun at an early stage. . . . It has been demonstrated that great improvement and even cure can be effected if only one-half hour of instruction is given per week.”⁴

Stuttering, says Dr. Gesell, “is definitely curable, and responds to corrective training. Such training is largely a skilled and specialized phonic instruction which can be given in public school classes.”⁵

But there is in fact as little agreement regarding the

³ J. S. Greene, *The Mission of the Speech Specialist*. (Proceedings of the National Education Association for 1916, p. 864.)

⁴ D. Mitchell, *Schools and Classes for Exceptional Children*, p. 41. (Cleveland Educational Survey, 1916.)

⁵ A. Gesell, *Exceptional Children and Public School Policy*, p. 47. (Yale University Press.)

type of treatment to be given in school as there is regarding the basic causes of speech defect. There is no standard, generally accepted procedure. "During the last school year" (1915-1916), reports Dr. Walter B. Swift,⁶ "I traveled some two thousand miles and visited over twenty-five cities for the purpose of ascertaining what methods were used for the improvement of speech in the public schools. *I found the methods as numerous as were the cities visited.*"

To resume: A certain proportion of the pupil community consists of speech defectives. Deficiency in this regard is not only a social drawback, and a potent cause of almost inestimable misery; it is also a definite bar to many vocations for which the sufferer may have every other qualification. "Only those familiar with the subject can appreciate how serious this handicap is, what suffering it causes, and what effects it produces on the sensitive child."

Nevertheless, for reasons referred to in the beginning of this chapter, this defect has been taken for granted during past ages, and very little effort has been made to battle against it. The first important attack on the problem, says Dr. Greene, came in the form of operations on the tongue for the cure of defective speech performed by surgeons beginning with Dieffenbach in 1841. But it was soon found that physical deformities are not accountable for a large proportion of the cases, and the attack shifted to a study of possible psychic causes—a point which is still considered by most teachers an important part of the problem of reeducation.

⁶In Proceedings of the National Education Association for 1916, p. 867.

These children "are highly strung or sensitively organized." It is for this reason that we have grouped them as differing from the typical group mainly by virtue of temperament. That proportion of them whose defects are remediable by some type of medical or surgical care, are not educational problems any more than are the undernourished or anemic. Those who really need educational attention and can be improved by education need it because of unhealthy temperamental organization. All of the drill commonly tends toward the goal of giving these children conscious control of themselves.

To this phase of the subject we shall return later. Meanwhile it is obvious that the first step to take, after segregating the group of speech defectives, is to detect those who require medical and not educational treatment. Every child should, therefore, be examined by an experienced medical specialist. Cases of "decided lockjaw deformities, and latent nervous or psychiatric conditions" may well be left to the medical profession, says Dr. Swift. "The chief service that the physician can render the teacher is in finding organic causes of speech defect, or in stating clearly that there are none."

It is the group that is not suffering from organic defects or definite psychic disturbances, that constitutes the proper field of labor for the teacher. As to this group, it must be stated that the work is so new, and the contributions that have so far been made are so lacking in authoritativeness, the experiments have been so few and the data gathered so unreliable, that, in America at any rate, the work still remains to be done. We have barely arrived at the point where the physician is receding into the background and the teacher is coming into his own.

This teacher is a pioneer. Facilities for his training are lacking and will so remain until information and skills that may be transmitted, have accumulated.

Unsettled status of classification of defects and of remedial procedure.—The classification of speech defects is not standardized. One hears of stammering, stuttering, cluttering, mumbling, lisping, and other defects. Unfortunately, teachers in this field sometimes tend to broaden their work and include readily remediable defects of voice, enunciation, and pronunciation, work in the nature rather of ordinary teaching than of dealing with the problems of a handicapped group. Then again, the work is sometimes confused with remedial work for the deaf and partially deaf, and students of the problem of speech from that point of view undertake this work also. This combination has its dangers. The problems are too dissimilar.

Again, there is lack of agreement in procedure. Not only do teachers and systems differ in the mode of attack, but within the system and with the same teacher, the statement is sometimes made that uniform procedure is not possible. "The method used depends entirely upon the individual, the subject being studied."⁷ While this is necessarily true to some extent, as much as the fact that no teaching can ever be uniform and standardized so long as the chief characteristic of the race is variation, it must also be true that as types become established, routine methods for particular defects, ages, and original causes, will tend to come into use. Meanwhile we hear of correct breathing, relaxation, rhythm, articulation, pronunciation, tone production, the development of self-

⁷ See Proceedings of the National Education Association for 1916, p. 869.

confidence, poise, and, finally, conscious control of the speech organism which others use without any knowledge of its operation.

We do not know how many speech defectives there are ordinarily per thousand of the school population. We are just beginning to learn that some children formerly dismissed as stubborn, or backward, or dull, are speech defectives. What is even more important, the work is not as widespread as one might suppose from a consideration of its importance. As is the case with all types of special work which require a large population from which to select the exceptional few if the work is to be done with any degree of economy, it is safe to say that practically no remedial care is provided for children living in the rural districts. Of the sixty-eight cities in the United States which number more than 100,000 in population, not more than twenty-five⁸ have made provision for this work. In other words, it is probably safe to say that it is exceptional and not usual for the speech defective to be attending a school where remedial work will be offered. As regards the major part of the child population, a beginning is still to be made.

Specialized full-time schools proposed.—The cities which now provide some special work for speech defectives follow uniformly a procedure whose validity may be questioned; they do not establish special schools or special classes where all of the child's regular school work is done. They remove the child from his regular grade for one or more periods each week to meet the speech teacher with other defectives either in their own building or in a center where the speech teacher works, and this

⁸ Statement based on investigation made by the writer.

instruction is concentrated on speech correction. This done, the child is dismissed with instructions for his guidance, and sometimes a special memorandum is sent to his teacher, to enable her to coöperate and assist in his efforts to overcome his handicap. It would seem that the principles as well of individual as of social psychology operate against the efforts of the child under this arrangement. While his drawback is with him every moment of his school life, the special instruction is given him more or less isolated from its application in hourly school use. Again, he faces at every attempt to participate in class activities that amusement, so painful to endure, which is normally meted out to deviates among primitive people and children—a state of affairs calculated to induce that fear, lack of confidence and of self-respect which may confirm his defects or, at best, retard recovery.

If children were diagnosed immediately on admission to school, when the defect has been established the least possible length of time, when self-consciousness and a feeling of inferiority have had the least possible opportunity to do harm, when there are ahead the maximum number of years for correction, and if these children were gathered in special schools for full-time regular work, the instruction carried on by specially trained teachers would be always operative instead of sporadic. The assistance would be effective exactly at the moment when the occasion arises and in connection with regular subject-matter rather than in isolation, and would in other ways operate for the maximum benefit of the child. Such a school would alter its curriculum to suit these children and introduce the maximum number of exercises calculated to be beneficial, as part of the regular work and without the

child's knowing at all times that he was concentrating on a defect. The teachers in such a school would become accustomed to the slower tempo in which oral work must necessarily be carried on, and would not feel the strain on patience that must be felt when the work of a normal class is held up by one stammering child.

Finally, the laws of social psychology which now operate against the defective would actually operate in his favor. Not only would he be relieved of the burden of ridicule or even sympathy but, others being exactly in his case, the salutary effects of rivalry would be brought into play. There would be a race for improvement. Instead of exclusive teachers of speech, we need regular teachers with this additional training, doing full-time work in regular full-time special schools. There are other advantages involved. All the medical care, the psychological or psychopathic work could be centered for efficient operation; systematic observation, experiment and study could be carried on, and the school plant adapted in whatever ways seemed necessary for the purposes of the education of these children. Finally, the arrangement would facilitate teacher-training by means of apprenticeship, the best method now available.

III. The Deaf and the Blind

Definition of these classes and numerical aspect of the problem.—It is obvious that there are all degrees of defective vision and defective hearing, ranging from the slightest deviation from normal to complete lack of these senses. What is the degree of blindness or deafness which handicaps the individual to the point where he requires differentiated education? By

our definition, the division may be roughly made at that point where the child cannot, even with supplementary assistance specially devised for him, be kept with the regular classes. The schools which have done much work of this sort with temporarily or permanently backward children, are also in the most progressive centers attempting to hold the partially deaf and the partially blind.

Particularly in the field of sight conservation is there being done in certain American cities work of the highest possible value. This work has been so well described by Mr. R. B. Irwin,⁹ one of its most earnest promoters, that we shall content ourselves here with a quotation from his description, to indicate something of the procedure:

"In buildings designated as conservation-of-vision schools, a room is set aside for the use of children with defective eyesight. A teacher is placed in charge of the room whose function it is to assist these children to keep pace with the boys and girls enjoying normal eyesight. All written work is done in the special room. Practically all oral work is performed in the regular grade room with the other children. For example, a fifth-grade child does his written arithmetic, map work, reading, written composition, and writing with the special teacher. Oral arithmetic, geography, history, grammar, oral spelling, etc., are recited in the regular fifth-grade room. This keeps the sight-saving class pupil in competition with those enjoying normal vision, and guards against the tendency to set special standards applicable only to special groups."

⁹ Sight-Saving Classes in the Public Schools. (Harvard Bulletins in Education, No. VII.)

For purposes of this chapter, a blind person is one "in whom the sense of sight either is entirely wanting or is so slight as to be of no substantial utility, or a person in whom there exists little or no visual perception;"¹⁰ and a deaf person is one in whom the sense of hearing is either wholly absent, or is so slight as to be of no practical value."¹¹

In the population at large, there is approximately one deaf person to every twenty-five hundred, and about one person to every two thousand of the population is blind.¹² In view of the fact that much of this blindness and deafness results from accident or disease occurring in later life, the percentage in the population of school age is still smaller. Only one-tenth of the total number of the blind are found among persons under twenty years of age; and as the congenitally deaf account for only one-third of the total number, it is quite likely that the percentage among children of school age is smaller than for the population at large.

Present educational status.—The problem is therefore not of large proportions but, for the persons involved, of vital importance. Both of these classes are, in the United States to-day, educated to a large extent in residential institutions maintained by the various States. Eighty per cent. of all the deaf pupils under instruction in the United States in October, 1919, were being trained in public residential schools; the public day schools accounted for fifteen per cent. of the total number under instruction; and twenty-one private and denominational

¹⁰ H. Best, *The Blind*, p. 3. (Macmillan, 1919.)

¹¹ H. Best, *The Deaf*, p. 3. (Crowell, 1914.)

¹² Federal Census, 1920.

schools cared for the remaining five per cent.¹³ By far the largest number of blind and partly blind pupils receiving education in the United States attend the residential schools. In the school year 1918-19 the attendance at the forty-five residential institutions was 4616 as against 989 attending day schools in thirty-six cities.^{13a}

The reasons for these facts are found in the accident of historical development rather than in deliberate educational theory; and the desirability of continuing along this line will receive some consideration in a later section. While the history and technic of the education of the blind and the deaf have no place in a general volume devoted to the whole field of elementary education, a few facts may be briefly noted: Apparently little of consequence was done toward solving the problem of the education of the deaf before the middle of the eighteenth century.

"The seat of the first permanent school to be established in the United States for the education of the deaf was Hartford, Connecticut; and the name of the one man with which the beginning work will forever be coupled, is that of Thomas Hopkins Gallaudet."¹⁴ While some efforts to solve the difficult problem of enabling the blind to share in the cultural inheritance of the race date back as far as the sixteenth century, the real work in the education of the blind begins with Valentin Haüy, and the "Institution National des Jeunes Aveugles" founded in Paris toward the end of the eighteenth century. The first American school for the blind was established in Massachusetts in 1832.

¹³ U.S. Bureau of Education Bulletin, 1921, No. 14.

^{13a} U.S. Bureau of Education Bulletin, 1921, No. 16.

¹⁴ H. Best, *The Deaf*. (Crowell, 1914.)

Our reference to the special methods of instruction must necessarily be brief. "From the beginning of organized instruction of the deaf in America a system of signs has been in use to a wide extent."¹⁵ In conjunction with the manual alphabet, the system has taken its place as a recognized means of education and communication. Another method, as yet not so well established in the United States as the sign and manual alphabet methods, is known as the oral method, which undertakes to counteract the handicap of the deaf by substituting lip reading and the conscious formation of words by the deaf, using their speech organism. For the deaf are ordinarily not "dumb." They are speechless because they do not hear. They may, however, as teachers of this method are demonstrating, be given the use of their speech mechanism in whole or in part by other means. The oral method is gaining in popularity, and is the sole method employed in most of the city day schools, to which reference will be made later.

The key to the instruction of the blind, certainly so far as reading and writing are concerned, must be the effort to substitute the sense of touch for that of sight. Obvious though this may seem, the effort to establish a method of raised letters which might be read and in which the blind might write, and which might be universally adopted, has been long and arduous—an interesting history which would not be in place here. Suffice it to say that the system of print known as Revised Braille has finally been adopted for uniform use in all schools, and that writing is done by the use of a special device which enables the blind to make this print with comparative rapidity.

¹⁵ H. Best, *The Deaf*. (Crowell, 1914.)

Residential institution or city day school?—Education of the blind and the deaf in the United States began at a time when city systems were in their infancy and struggling to develop facilities for the mass of typical children. The schools were established by the States. Obviously, if they were to have pupils, they must provide residence facilities. The primary object in providing these facilities was not that residence was an essential feature of the education of the blind and deaf; it was a simple necessity if the schools were to have pupils. Once established, the system took root. Not only did it become firmly grounded in practice and develop traditions; it grew physically in the constant extension of plant. The public became accustomed to the appropriation of funds for the education of these classes on the part of the State, and the cities, seeing these children cared for educationally, were slow to enter the field.

But the institutional method of educating these classes away from the ordinary atmosphere in which they are to live, and in the midst of similarly handicapped persons with whom they normally will not associate exclusively, is being challenged on theoretical grounds. Unfortunately, it is rather a law of human institutions that a tradition once established tends to perpetuate itself and, the original reasons failing, new ones not heretofore thought of are found. Just as the place of the classics in the curriculum was justified for their disciplinary value when the original definitely practical reasons for their inclusion began to be obsolete, so one must expect to meet in this field of controversy some arguments probably based not altogether on the interests of the children to be educated.

The first day school for the blind was established by the city of Chicago in 1900, since which time such schools have been established in a number of other large cities, among them Cincinnati, Cleveland, Toledo, Milwaukee, Racine, Detroit, New York, Newark, Jersey City, Los Angeles, New Orleans, and Houston. The first day school for the deaf was probably established in Boston in 1869, since which time nearly eighty others have been established, forty of them within the present century.

Briefly, the case for the day schools may be summarized as follows:

(1) There is no reason for separating these children from their families and normal associations and experiences. They are not typical institution cases, and even where homes are broken up, the current tendency among social workers is to minimize institutional type of care by "placing out," living in cottages, and other methods. The need which compelled boarding in the first place no longer is operative to the same extent.

(2) The children are expected, as far as possible, to become normal functioning members of society, not residents of institutions. By living at these schools, especially arranged for them, and in association with others of their kind, they are deprived of valuable experience and in fact definitely handicapped.

(3) In the case of deaf children particularly, living at home among speaking persons gives scope for a great deal of practice and experience in lip reading and in speech.

(4) Children may begin studying in day schools at a much earlier age than is possible in institutions—an important advantage, particularly for the deaf.

Against the day school it is stated:

(1) That there are transportation difficulties in going to and from school.

(2) That the full-time supervision which the institution offers is a very important part of the education of the children.

(3) That grading for group instruction is practically impossible in the local schools, which are necessarily small.

(4) That special curriculum opportunities may be offered in the institutions, as for example specifically adapted vocational work and music which has played an important rôle in the institutional education of the blind.

(5) Normal social intercourse, play, and sports are more easily arranged for in an institution among persons equally handicapped, making possible a happy personal development, and the formation of friendships.

(6) Some children, by virtue of residence where no day schools exist, or by virtue of improper or unfortunate home environment, are better cared for in institutions.

“Consolidation” for special education.—Two important problems should be noted before closing the discussion of the education of these children. The case for the institutional care of children in so far as it concerns arguments inherent in the fact that the group is small—as, for example, lack of grading, and poorer curriculum facilities—is, but ought not to be, valid. As has been pointed out in preceding pages, special education is very expensive, and because the children to be instructed form a very small portion of the population, the expense is not feasible except in the largest centers. Special work, such as the care of health, is equally impractical.

For similar lack of ability in rural districts, other phases of education such as music, supervision, and grading, consolidation has been urged. The time has come when, for purposes of special education, consolidation should be urged on the cities. Wherever communities are so located that, while politically separate corporate entities, they are, in terms of geographic contiguity, transportation, and other features, single communities, they should unite in maintaining in common, for all the children involved, these special schools. Four large cities bordering on San Francisco Bay, for example, San Francisco, Oakland, Berkeley, and Alameda, or the two large cities, Minneapolis and St. Paul, as well as other communities similarly located could to the advantage of the children involved and, with the organization of transportation facilities, maintain in common better schools for handicapped children than exist in any of them singly.

The problem of attendance.—The period of compulsory education ordinarily provided by law is insufficient in duration to give these children the necessary minimum of education and many of them are therefore deprived of it, in spite of the fact that facilities are at hand. Handicapped children necessarily require more time to do the same work as typical children. Standards for these children are necessarily different. A change in the law, making longer periods of attendance necessary for the totally blind and deaf, is an immediate need. A better method than the passage of such legislation, however, would be large discretionary powers in the hands of the permanent Board of Education, which, with the advice of experts, could make school regulations to meet situations as they arise. It ought not to be necessary to go to the legisla-

ture and spend effort educating that body every time a situation such as this arises in the education of the children of the commonwealth.

IV. Crippled Children

"Although there are in the United States many thousands of crippled children, probably as many as there are of deaf and blind, little attention has been given them as a class. They are not even enumerated in the decennial Federal census. While special provision for the deaf and blind children is made in all States and for feeble-minded and incorrigible children in most of the States, few States make any special provision for the care and education of crippled children, and in only half a dozen cities are there separate schools or classes for them, and in the schools of most cities, towns, and rural districts not even suitable seats and desks are provided for them."¹⁶

The problem of the crippled child would seem at first sight to present merely a question of transportation, but it is in fact also a further problem of school equipment, since the cripple frequently requires special seat and desk provisions, and is not capable of going up and down stairs. Furthermore, this problem involves very special curricular consideration since vocational opportunities for the cripple are so definitely limited by his physical condition. While some work has been done in this field and some cities are making provision for the care of crippled children, it is a disturbing fact that in comparison with the problem presented, very little work has as yet been done

¹⁶ U.S. Commissioner of Education P. P. Claxton, U.S. Bureau of Education Bulletin, 1918, No. 10. The failure to enumerate applies also to the census of 1920.

for these children who presumably are possessed of average ability to avail themselves of the opportunities of the common school.

From our point of view, no child is crippled who can manage to get along under the ordinary conditions as they exist in school. We should disregard, too, the temporary, though most important work, of various State and city hospitals which, independently, or in conjunction with city Boards of Education, furnish instruction to crippled children.

The most important problem involves those children who are permanently crippled, and living at home. These children cannot attend the regular city schools, and the work offered there is not always suitable to their future. If by special education is meant the effort to minimize a given handicap and to develop compensating abilities, these children must be the objects of very special provision. On the physical side, these children need transportation facilities, special buildings to facilitate getting about, and to provide especially for the care of health; special equipment, such as suitable chairs and desks, arrangements for a midday meal, open-air recreation, and other phases of physical well-being. On the educational side we face the problem of the curriculum in terms of a future for these permanently crippled children, proper grading, and other problems.

One most important fact regarding the present educational status of cripples in the United States is that "a very high proportion of the crippled children attending special classes are unable to go beyond the grammar grades because the high schools offer no free transportation by stage, and the buildings, often without elevators,

have classrooms on several floors, which are not equipped with special seats or desks. . . . There are as yet no special high schools for cripples in the United States and no high-school buildings with any classrooms offering the accommodations needed by crippled children.”¹⁷

Residence State schools for cripples required.—In view of the fact that higher education of college and university grade is available for the deaf and blind, and of the further fact that large sums are being spent in the United States on the unpromising project of training the very dull and feeble-minded, it seems tragic that the physically crippled, presumably possessed of average intelligence, should be practically barred from educational facilities beyond a given grade. It is obvious that special high schools cannot be established for them except possibly in one or two of the largest cities in the country. This being the case, it seems reasonable to demand that institutions of State-wide character or, if necessary, national institutions of that grade be established for these classes. In the case of the secondary and higher education of cripples, we obviously come to the point at which the American practice of local unit control in the public schools breaks down. The American States are now caring for the deaf and blind, and are spending large sums on the education of the feeble-minded and delinquent, and the higher education of the crippled should no longer be neglected. The residence facilities of the various State institutions for the blind and the deaf which will come increasingly into disuse by the progress of city schools for these classes, may well be readapted in part, at least, for the higher education of cripples.

¹⁷ U.S. Bureau of Education Bulletin, 1918, No. 10.

Summary

The compulsory laws bring to school all of the children, including some hitherto neglected in the historic past because of the general neglect of such classes and failure to comprehend their potentialities, and in the immediate past because of the struggle to establish educational facilities for the masses of typical children. Democratic ideals demand equality of opportunity for all. Social economy demands the reduction of dependent classes to the lowest possible minimum. The method of simultaneous instruction, even when supplemented by numerous devices which help to keep many partially non-typical children with the group, makes it impossible to educate with the group children of certain marked abnormalities. This presents the problem of special education.

A non-typical child from our point of view is a child who cannot, by any device, be subjected to the typical procedure. Hence we exclude from this class many children hitherto included either because their deviation is temporary, such as retardation due to illness, transfer, language handicap; and many whose deviation, while permanent, can be overcome by devices such as slowing up the pace or lowering the requirements.

For the really and permanently handicapped, who require differentiated education, the theory is laid down that the basic principle guiding such education should be the endeavor to minimize and compensate the handicap and further, to educate for types of activity where this handicap matters least.

The following classification is suggested:

Mental deviation: (1) the most highly endowed; (2) the dullest of the normal group.

Temperamental deviation: (1) incorrigibles of normal intelligence; (2) speech defectives.

Physical deviation: (1) blind; (2) deaf; (3) crippled.

The four classes dealt with in the chapter are blind, deaf, speech defectives, and the crippled.

Speech defects are probably in large measure due to nervous, temperamental causes, which will respond favorably to treatment which has as its aim the building up of confidence and giving the child conscious control of his speech mechanism, through breathing and deliberateness. The suggestion is made that these children be gathered in permanent full-time schools to replace the present system of part-time instruction in centers directed solely toward overcoming the speech defect.

The blind and the deaf are at present cared for, very largely, in residential State institutions. This procedure is, however, being challenged, and a vigorous movement for the establishment of day classes and schools for the blind and deaf as part of the city systems is now in process.

The education of crippled children has heretofore, to a great extent, been neglected. The children require special facilities for medical care; food during the day; buildings designed for easy getting about, and maximum of fresh air; special curriculum adjusted to their probable future; and, finally, transportation facilities.

In the case of all these children we find again the familiar problems of:

(1) Discrimination against children residing in rural districts.

(2) The decreasing ability, even of urban centers, to furnish appropriate education, and the consequent need of consolidation at least for this purpose.

(3) The drawback of cumbersome, detailed legislation in the field of education and the need for discretionary power in the hands of administrative Boards.

Problems

Two important problems dealt with in this chapter, may well deserve further consideration.

1. The meaning of typical and non-typical, and the proper differentiation between them.

2. The correct principles underlying a general theory of the education of non-typical children; the proper classification of non-typical children for purposes of instruction still remains to be settled.

3. The percentage of children suffering from defects of speech; the classification of these defects from the point of view of corrective educational treatment; the method of distinguishing between those requiring surgical or medical treatment, and those requiring educational training; the character of this training—these problems are still unsolved, and represent a challenge to the student of elementary education.

4. The suggestion of this chapter that speech defectives be gathered in permanent, full-time schools, will not be met with universal agreement by students in this field. It represents a problem that may be worth discussing.

5. In the field of the education of the blind and the deaf, the residential institution *vs.* the day school is still an open question. The exclusive use of the oral method as against the manual or the combined method in the education of the deaf is a problem too detailed and technical for this chapter, but one in which the student may

be interested. The question is by no means settled or one-sided.

6. The problems of proper compulsory periods and of consolidation for purposes of special education are of vital importance.

7. In the field of the education of crippled children, the student will undoubtedly find a local survey and a study of the problems in that concrete form, of the greatest importance.

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some of the problems discussed in this chapter.

CHAPTER IX

SOME PROBLEMS OF ADMINISTRATION

In the chapter dealing with the work of the principal, we classified the many activities which he carries on into three rather rough groupings; real educational work, work which grows out of the fact of the school's particular location and patronage, and finally, a mass of duties primarily routine, which might possibly be performed by some one else and which he frequently performs merely because no assistance is supplied.

The primarily educational problems with which, in accordance with the principles set down in the chapter referred to, the principal should be permitted to deal, and for which he should be equipped with an increasing amount of initiative and discretion, will occupy our attention for the several chapters that follow. With the routine and clerical work that the principal does merely in default of proper aid, we need not deal further. With the indefinite group of things which cannot be done by the untrained and unprofessional person—a group, nevertheless, which cannot be performed by the central authorities because of the nature of the case, since it is based in the very fact of particular location—we shall now deal, as well as with some general problems of administration which do not involve primarily instruction of the individual child.

It is in this field that we expect the great variation based on varying ability in leadership and in devotion and vision, and our expectation is not disappointed. Coming as we do to a point where personality counts, in the building up of *esprit de corps* among teachers and of morale among pupils; in establishing cordial and helpful relations with parents and local social agencies; in developing processes to meet the needs of the particular community; we find large variation in the degree of success attained, even within the largest and best managed city school systems.

The degree of variation is, however, no more marked than the almost total absence of standards and of accepted procedure. We find ourselves in a field where, for the present, apprenticeship is everything, and formal training, so far as the specific activities are concerned, almost nothing. Scientific method has penetrated least of all into the daily detail work of the principal. Whether in the nature of things it can, or will, remains to be seen.

It is almost hopeless to attempt an itemized list of duties. It would probably be futile. We shall content ourselves with five main topics; namely, unit of working group, unit of time, morale, non-curricular welfare and social activities, and neighborhood contacts.

I. Unit of Working Group

The school unit.—What is the proper size of a school unit? We find great range of practice, and the bases of decision are almost entirely considerations other than educational ones. The school community group ought in the first place to be homogeneous, if the working of the school as a unit is to have any educational value. Is the

group represented by the age range six to twelve homogeneous? If this group is not sufficiently homogeneous for common purposes, may the fact be overcome by dealing with the school in two or three groups, or should actual school grouping be based on homogeneity? Is there a maximum size that properly makes for most perfect efficiency representing a teaching-corps unit as well as a pupil unit and giving a principal the utmost opportunity for completely satisfactory functioning? Is there a minimum number below which any of the things attainable by the school group unit cannot be efficiently achieved?

There is so far no scientific information available to answer these questions. The number of children constituting the group, the age range, the several factors which condition the possibility of a single individual to function well as a principal, the desirable number of the teaching corps, departmentalization, curriculum enrichment, the character of the community in which the school is located—these are some but probably not all of the factors to be considered in the ultimate decision. It is entirely possible that present practice will not accord with ultimate organization. One may readily imagine, for example, many small two-grade schools located very near homes and sending children to more central and larger four-grade schools, just as the elementary school now sends its children to the junior high school, which in turn, feeds the most centrally located institution of all, the high school.

The class unit.—We are equally in want of scientific information regarding the class unit. What is the proper number of children per teacher for maximum efficiency?

The studies so far made¹ have confined themselves to establishing correlations between the number of pupils per class and the proportion of promotions, or the results attained in standard tests, an attack which fails to consider a number of most important factors. In the absence of scientific information, we have again mere experience. "The current view (in England) is that the best work can be done with an elementary class of thirty-five to forty." On the other hand, "Dr. F. H. Hayward never tires of pleading for the large class in everything where stimulus and inspiration form parts of the essence of the teaching process."²

Even the experience in this matter is not purely educational, since it is always tempered by economic considerations. The method of group instruction "rests, in the first place, on economy."³ The number of pupils per teacher found in the best school systems varies from thirty to forty, and it is assumed that under perfect conditions a group of fifteen to thirty is the best with which to work. Classes of from forty to fifty and even more are not infrequently found in the public schools. Accurate information will have to be sought in this field. It must always be borne in mind that simultaneous instruction had its origin not in educational theory, but in financial considerations. In the case of the Christian Brothers as well as Bell and Lancaster it represented a brilliant

¹See P. A. Boyer, *Class Size and School Progress*, *Psychological Clinic*, Vol. VIII, p. 82, and C. H. Elliott, *Variation in the Achievement of Pupils and Relation of Size of Class to School Efficiency*, University of Illinois Bulletin, Vol. XIX, No. 45.

²"Size of School Classes." *Elementary School Journal*, Vol. XXII, p. 404.

³F. N. Freeman, *Bases on Which Students Can Be Classified Effectively*. *The School Review*, Vol. XXIX, p. 735.

scheme whereby a method was evolved of teaching large numbers at small expense. The educational value of group instruction, real though it probably is, came as an afterthought.

What are the educational values? Those ordinarily mentioned are rivalry, the development of coöperation, training for working with one's fellows. Freeman^{3a} refers to the mutual stimulation and adds that "there is much stronger incentive to intellectual activity in association with others than in solitary study." He also notes as advantages of class instruction "the training which pupils receive in making social adjustment and in learning to work coöperatively with others, as well as the pleasure and satisfaction which they derive from their school association."

Undoubtedly there are other features making for superior efficiency in group work, found in the principles of social psychology, and involved in the operation of the gregarious instinct. One always has a feeling of confidence in the presence of one's fellows, and doubt in their absence. Almost every one has experienced the doubt of judgment regarding a good play or exhibit witnessed in the presence of a very few, or of one's own disapproval of something approved of by masses of his fellows. "What proportion of the ten thousand witnesses of a football match," asks McDougall, "would stand for an hour or more in the wind and rain, if each man were isolated from the rest of the crowd and saw only the players?"⁴ The gregarious instinct, he states, "is the root of no small part of the pleasure we find in attendance at the theater,

^{3a} *Ibid.*

⁴ W. McDougall, *An Introduction to Social Psychology*, p. 89. (Luce & Co.)

at concerts, lectures, and all such entertainments. How much more satisfying is a good play if one sits in a well filled theater than if half the seats are empty."

From this point of view there is possibly a number below which efficiency in group instruction would begin to deteriorate. Hayward's demand for large classes in certain subjects, on purely educational grounds, has already been noted. This applies to teachers as well as to students. Every experienced instructor knows how difficult it is to put forth maximum energy and enthusiasm in teaching a class that is too small, as well as he knows the hopelessness and confusion and discouragement in the presence of one that is too large. There is a class range which brings out maximum efficiency in the talented teacher.

We shall have to determine scientifically what number brings out maximum effort on the part of the teacher and on the part of the pupils. Obviously this index will probably never be a single numerical statement, for the minimum number of members per class must surely depend on many elements such as the age of the pupils; the subjects taught; the personal characteristics of the teacher; the intelligence status of the group as a whole, and the degree of variability within the group; the subject and method of instruction involved; and the physical conditions, as for example, difference between a classroom and an excursion. And so, too, there must be some maximum under all these conditions, beyond which the highest attainable efficiency is not possible. Of scientific information regarding the proper size of classes, as has been stated, there is almost none. Furthermore, in view of the organization and methods of instruction in our American

schools, a determination of this fact must be postponed for some years.

II. Unit of Time

Should children attend school throughout the year, or, if not, what shall be the length of term? How long shall the school year be? How long shall the school day be? How shall the school day be broken up? What shall be the length of recess periods and the duration of periods of instruction? How shall the daily program, the distribution of subjects, be made?

The problem of the program involving the length of the school year, the length of the school day, the number, length, and distribution of recesses, has so far received very little scientific study. Almost all of our practice is based merely on experience, and where there is legislation, this legislation represents the formulation of such experience. "After deducting holidays, the annual school term in most of our American cities is not more than 180 days,"⁵ but "lack of provision for adequate funds is perhaps the greatest hindrance to a longer school term." Assuming funds sufficient to provide the facilities necessary, what are proper standards?

Length of term.—Under current conditions two points will probably find educational thinkers in agreement, i.e. (1) that the elementary school ought to last six years, and hold the average child up to age twelve; and (2) that this school should ordinarily confine itself to the fundamental subjects. If these two principles are sound, it may be stated that the school year ought to be of such duration as is found scientifically necessary for the accomplishment

⁵ U.S. Bureau of Education Bulletin, 1917, No. 45.

of this purpose by the average child. It would seem on the basis of this reasoning that mere economy of time is not involved. It might seem, too, that the length of the school year should vary in accordance with the native ability of the child.

Some reasons, social rather than educational, are pressing for the lengthening of the school year. "The effects of the long vacations have begun to excite serious apprehension, and in many cities remedial action has been taken."⁶ That is to say, summer sessions of elementary schools are now reported in more than two hundred cities. Other cities have organized all-year schools and report that the arrangement has "proved successful in every way." In the instance referred to, the school was "located in the congested tenement districts where there is nothing for the children to do during the summer but loaf and fall into bad habits. The problem of street loafing in the tenement districts of Newark has very largely been solved by these all-year schools. Several policemen report that they have had very little trouble with gangs of boys since the establishment of these schools, and that there are fewer accidents in the streets."

But these reasons are social rather than technically educational. For reasons discussed in another chapter, the school is increasingly replacing the home, and in that sense of nurture, these summer sessions and all-year schools are properly a phase of education. Their existence, however, primarily for these motives, does not help to answer the question how much of the year we actually need for accomplishing our ends, and, assuming the suitability of the home, how much of vacation and of

⁶U.S. Bureau of Education Bulletin, 1916, No. 42, p. 1.

holiday the child requires and should have. There is very little medical information available regarding the desirability or value, or the proper length of school vacations. Educational, social, recreational, developmental value they seem to have by common agreement and practice. What is more important, *the time given to vacations is not needed for school work.*

If the principle holds that, for the present, the elementary school should retain the child for six years and confine itself to the rudiments, the argument for saving time by longer school terms has little validity. We need only such sessions as are necessary to give the child his work from year to year. The idea of economizing time for the bright child is limited, too, by the need to wait for maturation. The school talks too much in terms of intellectual capacity, and too little in that group of characteristics, such as judgment, experience, and emotional aptitudes, which comprise maturity. We cannot simply save time. Even where the child can seemingly grasp what we have to teach, it is frequently wiser to wait for maturity to ripen and overtake intelligence. If, on other than instructional grounds, the longer year is forced on the school, the situation may perhaps be met by shortening the day.

More important and more interesting still, the long year and the long day, if insisted upon for social reasons, may be utilized for the educational welfare of the child by the deliberate introduction of *time-consuming in the place of time-economizing methods.* Efficiency is a dangerous fetish when applied to education. It has its limitations. Processes themselves have educational values as well as ends. Every one knows the superiority of

assisting the child to find things out over "telling" them to him. Reading a book is better than reading a summary of it. Information secured for oneself slowly by means of excursions and personal investigation may be superior to the summaries and abstractions of the texts. The schools are beginning to recognize these educational facts. The problem and the project method, just coming into favor, involve excursions, investigations, and numerous other roundabout ways of achieving results. But the processes themselves have educational value. In these time-consuming methods, then, may be found a means of combining the desired length of year and of day with the definite limitations on mere rate of progress established by immaturity and by other considerations.

Length of day and of period of instruction.—In these matters of the proper length of day and of the period of instruction for any particular subject, we can only indicate a number of the factors that will ultimately assist in the establishment of standards. Psychological as well as physiological considerations will ultimately help to establish the most desirable length of day for the various age groups. The desirable length of year itself from the point of view of the social considerations enumerated above, may have bearing upon the question of whether the day shall be shorter or longer. The desirability of maintaining a long school year may automatically shorten the day.

When we come to a consideration of the desirable length of the period of instruction for any particular subject, we again face the physical problem of fatigue, the psychological problem of the possibility of maintaining interest and attention, or differences in taxing power as

between subjects and teaching methods, all of which will naturally vary with the degree of maturity of the children under consideration. Ultimately, the period which produces maximum efficiency will have to be determined for the various age groups.

III. Non-Curricular Activities

Under this head we come to a group of activities which take much of the principal's time and attention, but regarding which little can be said unless it be in the nature of relating personal experiences and methods tried and found to work—a procedure more suited to the educational journals than to a volume properly confined to practices that have permanent validity based on principle. Musical organizations, school journals, photographic, literary, and other clubs can only be mentioned. The same applies to such worthy activities as savings banks, home gardening, and numerous valuable devices of a kindred sort.

In the six-year school as we have conceived it, there should be no vocational work and, consequently, no vocational guidance. All of the children who leave the school will normally plan to enter the next unit and the over-age children unsuited to academic work who can nevertheless benefit by industrial training, should, by the wise recommendation of the Commission on the Reorganization of Secondary Education⁷ be sent to the junior and senior high schools. Nevertheless, the principal who has a personal interest in his pupils, will be their counselor and friend. He will be called upon for guidance and advice. At the moment this responsibility is undoubt-

⁷ See Chapter II.

edly greater than the available technic for meeting it. An active group of students are interesting themselves in this field, a sizeable literature on the subject is developing and, in time, the validity and the number of principles established will begin to measure up to the need and the expectations.

School lunches, their need and the best mode of organizing for them, are also now receiving attention in the literature to which attention is called in the bibliography. The well known student non-curricular activities, such as bands, boy scouts, athletics, must be mentioned and dismissed. The activities are important, but the procedure has not been standardized. They vary in spirit and excellence with the character of the home background, the principal, and the teaching corps.

IV. Neighborhood Contacts

The character of the relation with the community, too, varies with the people, the needs, and the personnel. This is one field in which no school system can demand uniformity, and in which excellence depends entirely on the devotion and on the personality of the principal. John and Evelyn Dewey describe most interesting and devoted work in Indianapolis;⁸ while a principal in another city⁹ states it as his opinion that "in order to insure the fullest functioning of the school, it is important that constructive effort be employed to encourage full community coöperation and understanding." For his particular district, he recommends that the typical at-

⁸J. and E. Dewey, Schools of Tomorrow, Chapter VIII. (Dutton, 1915.)

⁹P. A. Boyer, The Adjustment of a School to Individual and Community Needs. (University of Pennsylvania, 1920.)

tendance officer should be replaced by a visiting teacher to devote her entire time to the problem of school and community relationship. "Her specific duties would include investigation and elimination of unnecessary non-attendance, improvement of sanitary and general health conditions in homes and community, detailed follow-up work on the recommendations of the school physician and nurse as to the correction of physical defects, and the wise placement of pupils leaving school for work. She would act as intermediary between the community and the school, carrying the ideals of the school directly to the community, and fostering a constructive coöperation of social and civic organizations, as well as keeping the school in close touch with the currents of life in the community."

He recommends, too, that the school be "given over to the people." He would have his school building "so planned that auditorium, cooking, sewing, manual arts, music, and play rooms are on the first floor and basement for easy access and use by the community in the evenings." He would afford opportunities for "evening instruction as well as for recreation, play, and social and civic gatherings." He would provide for the children "direction and guidance during the summer months as well as at other times in the year" by means of a vacation school. In the ideal which he envisions, "the school must enter deeply into the lives of the people as well as into the lives of the children in order to become the great democratic socializing agency." This is, after all, a problem which each principal must face for himself. It represents one of the opportunities which an executive possessed of initiative always covets.

V. Morale

There are educational values to be derived in the school quite independently of class instruction and contact with classroom teachers. Doubtless the contacts, instruction, experience, and daily living of the school staff and the pupil community which make for that which we understand by morale, a fine spirit of coöperation toward fine ends, are so numerous and so indefinable as to make cataloguing an impossibility. We shall give some slight consideration to three phases, group undertakings, assemblies, and government.

Group undertakings.—Common school enterprises of a worthy character, having civic and educational value, have much to commend them. The carrying on of common school projects of large implication such as were developed during the war in the matter of Junior Red Cross, and savings for war loans, and of a more concrete neighborhood kind such as the carrying on of civic projects, frequently furnish experience and instruction of a kind and in a manner not achievable through "subjects." "There should always be some activity in which the school is taking an interest," says Freeland.¹⁰ Assisting the Red Cross by salvaging newspapers, participating in general community celebrations, raising funds by personal effort for some common good, such as financing a day-nursery or milk fund, or purchasing a musical instrument, undertaking to clean up the immediate neighborhood, or to petition a municipal body for necessary assistance—these and the numerous other group under-

¹⁰ G. E. Freeland, *Modern Elementary School Practice*, p. 369. (Macmillan, 1920.)

takings described in the educational journals have much to commend them. In addition to their value for the individual child, they make for beneficial cohesiveness, loyalty and coöperation within the group. They train, on their level of maturity, for the virtues so essential in the citizens of a democracy.

However, there are limitations and dangers. Every practical school man knows the pressure that is constantly being brought to bear on the school to interest itself in activities which, beneficial though they may be to the community, and disinterested though the proponents of such activities may be, have no educational value. There are cases to be found where at certain times the stress of participation in general community affairs is such that the education of the child becomes a secondary matter. Carefully preserved data running through a school year and indicating the amount of time given up for such purposes by children, would at times probably shock school men. It seems to be clear that one principle that might safely be laid down in this connection is that no activity regardless of its general beneficence should be permitted in the school unless it has at the same time definitely ascertainable specific educational value of some type. Again, unless such activity is definitely associated with a phase of classroom work being carried on, the amount of time and energy available must be held in bounds, even though the activity have general educational value. Not only do outside activities tend to militate against the general educational progress of the school; such activities as the school itself carries on, as for example, exhibitions for advertising purposes and inter-school rivalry, in the matter of athletics, building up the so-called school

loyalty and school spirit, must be held in check and tested by the simple principle of the educational welfare of each individual child.

Assemblies.—Every school holds assemblies, gives school entertainments, celebrates special days and events, acts as a group, works and thinks as a unit. It must be said again that in connection with this topic we rely almost exclusively on current practice developed by experience rather than by any scientific determination. Some philosophic thinking there has been in this field, but of objectively demonstrable principles, there are practically none. Professor Ernest Horn,¹¹ in a description of Speyer School assemblies, enumerates values which in his opinion resulted from these assemblies that may perhaps be taken as ideals to be attained by all projects of this kind. He says that they were conducted throughout on the responsibility of the children, that they were participated in by all grades; and that they were invariably a natural outgrowth of some part of the regular work, so that they did not require unusual preparation. They did not represent an artificial atmosphere and were not "pieces" that the children spoke. He states that the work was well motivated; that it operated to put children at ease; that it enabled them to express themselves before large groups; that it developed responsibility, coöperation, unity, and actually accomplished the goal of interesting and entertaining the audience.

Dr. Perry,¹² in outlining the possible uses of the assembly, which he considers "a valuable instrument for the fixing of ideals and the establishment of *esprit de*

¹¹ E. Horn, "A Typical Program for an Assembly Period at the Speyer School," Teachers College Record, Vol. XVIII, p. 331.

¹² A. C. Perry, Jr., The Management of a City School. (Macmillan, 1919.)

corps" enumerates eight different activities as follows: (1) recitations by pupils; (2) discussion by pupils of current events; (3) studies of pictures and other objects of art; (4) musical studies of all kinds; (5) celebration of special days; (6) flag drills and other distinctively patriotic exercises; (7) outside speakers; (8) motion pictures.

Professor Bagley¹³ considers that assemblies "offer an opportunity to give explicit instructions in matters that are not touched upon in the regular work of the school," and that "they offer an opportunity to begin the work of the day upon a high plane."

Enough has been said to indicate that the educational value of assemblies, their goals and the proper methods of attaining these goals still remain to be studied by objective methods.

School government.—Finally, we come to the matter of school government—the actual discipline and control of the group for their best educational welfare. "The problem of 'discipline,' the term used to encompass the whole range of the pupils' moral development, scholastically considered, is probably the most perplexing that confronts a principal."¹⁴ "School government and discipline are terms properly used," says Dr. Davis, "to include a host of situations in which unsocial or antisocial tendencies impede the organized activity of the school group, and have to be met by measures more or less apart from the regular life of the school, and consequently somewhat wasteful."¹⁵

The two great purposes of school government, thinks

¹³ W. C. Bagley, Classroom Management, p. 58. (Macmillan, 1918.)

¹⁴ A. C. Perry, Jr., The Management of a City School, p. 307. (Macmillan, 1919.)

¹⁵ S. E. Davis, The Work of the Teacher, p. 102. (Macmillan, 1920.)

Dr. Davis, are: first, to insure each member of the group an opportunity to perform advantageously the work assigned, without hindrance or distraction from other pupils; secondly, to develop habits and ideals of social behavior and self-control which will function in later situations. Dr. Davis notes five principal sources of discipline difficulty: (1) instinctive tendencies of children out of harmony with the school situation; (2) influences of some homes against the work of the schools; (3) popular educational principles misunderstood and carried too far and mischievously applied; (4) mischief-inspiring school organization; (5) the teacher as the cause of school trouble. He also enumerates five essential elements under the maintaining of school morale: (1) The school must have an organized routine. (2) Work should be initiated strongly and with a plan. (3) The element of persistence and consistency should be borne in mind. (4) Pupils should be held to the obligations of the school situation. (5) The actual academic scholarship and ability of the teacher dealing with the pupil are of utmost importance.

Undoubtedly the matter of discipline is based on assumed ideal standards of conduct which we expect of children; but what are these proper ideals of conduct? Surely they ought not to be arbitrarily set up. They ought to be formulated in terms of childhood rather than in terms of maturity. We have traveled far since the days when the school was the hated means of driving the child, and the "lazy fool was whipped at school." Is it too much to expect that ultimately we shall establish objective norms of the conduct that may be expected from the average child at typical age periods? Here again, it must be

that social psychology studying individual behavior within the group will ultimately make its contribution toward a definite principle of school discipline, because it is obvious that the individual does not act when alone as he acts in the company of a large group of his fellows.

Again, it is probable that the large prevalence of dullness and feeble-mindedness that has repeatedly been found among delinquent children indicates a definite relationship between school government and the intelligence of those who present the greatest school problems. It will not be possible much longer to discuss the matter of school discipline without regard to the question of intelligence. City-school principals know full well that the problem of governing their schools as between sections of the city varies greatly. It has been assumed that this is due largely to the fact of the different economic, educational, and social conditions of the average homes from which the children come. But the fact of the matter is that social, economic, and educational status is itself to a certain degree an indication of intelligence. Some children come from such homes because, always with numerous exceptions, they are the children of less intelligent persons and have probably inherited a lower degree of intelligence. It is safe to say that we shall not be on scientific ground in this matter of discipline until we study it carefully in relation to intelligence.

Summary

This chapter deals with six main phases of elementary-school administration, largely in the hands of the principal, and representing problems regarding which we have few scientific data. Practice in this field rests, therefore,

largely on tried experience, on tradition, and varies with the personality of the leaders.

I. A consideration of the problem of the optimum working group involves the question of the most desirable number for (1) the school, and (2) the class. The first of these problems raises the question (*a*) of homogeneity from the point of view of age—whether the six-twelve age range properly constitutes a unified working group; (*b*) of the desirable number of the pupil group from the point of view of morale, and the teaching staff from the point of view of *esprit de corps*; and (*c*) of the number and size beyond which the possibility of effective leadership on the part of the principal would begin to decrease. The question of the proper size of the class involves a complete discussion and scientific discovery of the values of group instruction, in order to determine the maximum and minimum numbers in relation to age, intelligence, subject, method, teacher, and other factors, for the best results. On both of these problems we are at present without accurate data. They remain to be studied.

II. In the matter of the unit of time, the question of the most desirable length of year, day, and period, we again find practice based rather on tradition than on principle. The tendency to lengthen the year and to establish a summer session finds support in social, rather than in educational, needs. The general feeling that the longer the term the greater the educational opportunity, has its limitations. If, as is agreed, the elementary school is to endure six years and confine itself to the rudiments, then the work may proceed too fast for the child's best interests. Maturity, too, which may lag behind intellectual

development, may call a halt. "Saving time" and "covering ground" have definite limitations as arguments for the longer year and the longer day.

In general, the length of the year may be governed by the time required for the accomplishment of the standard work by the average child. If, for reasons other than educational, a long year is desirable, the day may be shortened or time-consuming in place of time-saving methods may be deliberately adopted.

III. The non-curricular activities which demand the attention of the principal in his dealings with the pupil group as a whole are, to enumerate but part of the total, musical organizations, the school paper, photographic, literary, and other clubs, savings banks, home gardens, guidance, school lunches, boy scouts, athletics.

IV. Neighborhood contacts, involving organization of and coöperation with parents' associations, civic organizations, social agencies of every type, and direct visiting of individual homes by teachers assigned to this task, all in the interest of the pupil community, occupy a large or small amount of time and energy, varying with the character of the community and the personality of the principal.

V. Under the general heading of morale we have discussed the ways in which the principal works for unity and educational coöperation in his school. By means of group undertakings of many kinds which have educational values to recommend them, the children strive together for common ends. By means of stimulating assemblies, entertainments, celebrations, they learn to think together about things not so valuably brought out in the individual class, and develop a sense of ideals and of cit-

izenship. In handling the inescapable problems of school government, the principal faces opportunities for educational service which frequently belong more to the school than to the individual teacher.

Problems

Practically every subhead in this chapter is an index to a set of unsettled questions in the field of elementary education. A number of these follow:

1. What number of children constitute an ideal working unit for elementary-school purposes?
2. What is the ideal size of an elementary-school class?
3. What is the ideal length of the school year?
4. How many hours constitute the ideal school day; how many minutes constitute the ideal working or lesson period; and how may the school day best be divided?
5. Make a study of local usage in the matter of assemblies. Make a list of the educational values to be sought and, on this basis, of the errors to be avoided.
6. Plan a set of assemblies for one-half year in a six-grade school.

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PART IV

**PROBLEMS WHICH INVOLVE
INSTRUCTION PRIMARILY**

CHAPTER X

THE CLASSIFICATION OF PUPILS FOR PURPOSES OF INSTRUCTION

Simultaneous instruction an established method.—Modern school procedure everywhere is characterized by the method of simultaneous instruction. Obvious and inescapable as it may appear to-day, "the very familiar plan of class recitation as a systematic method, the essential feature of all modern schools, was first brought into general use by the Brethren of the Institute,"¹ little more than two hundred years ago. Class instruction, then, is a modern invention after all. In the preceding centuries education was carried on by the very wasteful individual method whereby the teacher called up one child at a time for instruction, the others meanwhile being left to their own initiative. In English-speaking countries the group system, popularized by Dr. Andrew Bell and Joseph Lancaster, both of England, is not more than a century old. It was in fact the monitorial system of these school men, demonstrating as it did the possibility of mass education without unduly burdening the taxpayer, that assisted in the development of free public schools in America.²

¹P. Monroe, A Textbook in the History of Education, p. 439. (Macmillan, 1914.)

²For detailed history see S. C. Parker, The History of Modern Elementary Education (Ginn, 1912), and E. P. Cubberley, Public Education in the United States. (Houghton Mifflin, 1919.)

In view of the power of existing institutions to continue to exist by virtue of mere inertia regardless of merit; indeed, in view of the ability of these institutions to find excuses for their perpetuation regardless of the original causes, it is important for the progress of modern education as well as for the freer discussion of proposals to reorganize the grouping which exists in the public schools to-day, to note two important things: first, that simultaneous instruction, and particularly the form it has assumed, of grade instruction, is a comparatively new and recent institution; secondly, that the original reasons for and arguments in favor of this device were economic rather than educational. The invention of this obvious feature of education was, of course, of tremendous importance in the development of free schools, since the expensiveness of individual instruction would practically have precluded the development of mass education.

"The traditional methods of instruction were so wasteful," says Parker, "that children would attend school for years and get only a smattering of reading and writing." Nevertheless, it is to be noted that the new device was one for the more economical use of the teacher, and for the saving of money, rather than for any educational values claimed in its favor. It is true, of course, that in due season it was discovered that in addition to its economic features, class instruction possessed certain educational values.³

There can hardly be any question as to the advantages to be derived from simultaneous instruction. Just what

³ For a discussion of the advantages and disadvantages of class instruction see J. B. Sears, *Classroom Organization and Control*, Chapter X (Houghton Mifflin, 1918), and G. E. Freeland, *Modern Elementary School Practice*, Chapter XIV (Macmillan, 1920).

these advantages are, however, and what the optimum size of the group may be, still remain to be scientifically determined, as was noted in the last chapter. Whatever these advantages may be, whatever disadvantages there may be involved, no one can question the fact that simultaneous instruction has come to stay. The question with which modern education is struggling, however, is the form that this method shall assume. In other words, on what basis shall groups be formed in order to produce a maximum of homogeneity and, conversely, the minimum of friction and hindrance to good teaching?

Grouping by grade an inadequate procedure.—American schools have developed one type of simultaneous instruction which is too frequently confused with that form of instruction itself; namely, the system of grade grouping. "The chief basis of classification has grown out of the grading system, and this in turn has depended upon age as its basis. The time of entrance upon school work, the time of promotion, and the time of graduation have been based fundamentally on chronological age."⁴ The fact ought to be ever so clearly understood that the antithesis is not between grade instruction and individual instruction. In other words, the method of grouping by grades is not the only means of applying and taking advantage of the means known as simultaneous instruction. However great may be the desirability and usefulness of simultaneous instruction, the units of organization need by no means be grades representing, as they do almost entirely, the number of years in school. Homogeneity for the purpose of grouping for simultaneous instruction

⁴F. N. Freeman, "Bases on Which Students Can Be Classified Effectively." *The School Review*, Vol. XXIX, p. 735.

will involve such factors as the nature of the child, curricular objectives, and many other features to be noted as we go on in the discussion, far more complex and far finer in their methods of dividing and segregating for purposes of instruction than the rough method of "grading," involving as that method does, years in school, chronological age, and other features determinable almost entirely by the calendar.

How comparatively unimportant a factor chronological age is as an index for education, has been amply illustrated by the findings of recent psychological studies. Beginning with the new point of view originated by Alfred Binet, the concept of mental age is gradually replacing mere number of years of existence as an infinitely more meaningful index of intellectual status. But mental age is not the only index of differentiation. In every important phase of development, growth is marked by a notable lack of uniformity as between individuals, and mere age is becoming of ever decreasing value as a basis for deductions regarding educability.

Old age, it has been said, is a physiological condition rather than an accumulation of years. Some men are older at fifty than others at eighty. Apparently there is definite scientific ground for speaking of anatomical age. "The variation in the mental ability of ten-year-old children," says Professor Woodrow,⁵ "large as it is, is almost equaled by that in anatomical age. Measured by whatever index, the anatomical ages of ten-year-old children distribute themselves over a distance which it takes the average child five or six years to traverse. . . . In re-

⁵H. Woodrow, Brightness and Dullness in Children, Chapter VI. (Lippincott, 1919.)

gard to pubescence (to cite the variability of one of the indices) Crompton has found that some boys cross this landmark of physical development as early as the age of twelve and a half, while others do not do so before the age of seventeen and a half to eighteen. . . . It is well known that girls reach the age of puberty on the average about two and a half years earlier than boys. . . . It is not so commonly realized that this difference between the sexes in anatomical age is well marked by the end of the first year of life, and that it is present in ever increasing degree from the first year up to and beyond the age of puberty."

Here, then, we have another factor which makes chronological age as a basis of classification impractical for purposes of instruction. There are many others: When history is taught the child with a view to developing patriotism, love of country, devotion, admiration of noble and heroic deeds, the object is to secure an emotional response. But undoubtedly children differ in the rate and intensity of emotional development. Again, we may teach a subject in which progress demands not merely comprehension, but the exercise of judgment, as for example, the desirability or undesirability of the commission form of city government. Doubtless children differ in the rate and intensity with which they develop judgment and a number of other factors which, for the present, go by the general name maturity. Complete response to the stimuli offered by the school may definitely involve maturity.

In the field of history, for example, it is easily shown what a fallacy it is to assume that education calls merely on intellect. A very young child may be able to memorize

the details of such a series of events as the Conference of Versailles, which followed the Great War; he may have the emotional capacity to take on the teacher's or the parental and the community's point of view regarding that conference—a point of view which would naturally differ with geographical location, and would probably not be the same in France as in Germany. If he were very young, however, he would probably lack the maturity necessary to pass judgment on these events and, lacking that, he would hardly be in a position completely to understand the historical facts. And history is not the only example that can be cited. In literature, for example, the degree of maturity of the reader absolutely conditions response.

And so we come to a point in which we see that if we are to abandon subject-matter mastery as a goal, and the mere implantation of a teacher's prejudice as an ideal, if we are really to have education as a rounded development of all the faculties, it will be necessary to make a more thorough study than has ever yet been made of the child subject to training, and to adjust school work to the realities discovered by experimental psychology. Quite conceivably, there are emotional and maturity ages. Whether these ages are susceptible of acceleration as is the case with the so-called pedagogical age, or not susceptible at all, and definitely fixed in potentiality as is the case with ultimate mental age, we do not know.

In the face of these many phases of variation, the problem of homogeneity for purposes of instruction becomes complicated indeed. It has become clear that homogeneity on the basis of chronological age is an impossibility, if only on account of the established variation in

mental endowment—a point to which we shall return in a later section. When to this are added the facts of possible variation in emotional capacity still to be discovered, and the known variation in anatomical development between individuals and between the sexes, as well as the unknown but surely existing variation in the development of what may be called for want of finer discrimination, maturity, it is easy to realize how crude has been our grouping of children for purposes of instruction. What is very clear, however, is the fact that grouping children merely on the basis of the elapsing of time from birth, is far from adequate.

This method becomes glaringly inefficient when, disregarding all variation in rate of development and of ultimate achievement, we base our whole educational organization on this simple factor—eight years for elementary school, four years of high school, four years of college. Is it not possible that the future holds an *age of educability* which will include data on development of the intellect, emotions, moral judgment, maturity, and anatomical development? The reference is not to pedagogical age, which now means attained ability in standard subjects, but to *schoolable age*, which will be an index to the child's ability to work in the various fields of the school. The establishment of more exact homogeneity for purposes of instruction, and the real differentiation of instruction in curriculum and method adapted to the several groups, represent the greatest contribution which this generation of teachers has to make to public education.

Inadequacy of proposed remedies.—Even before the exact findings of current psychological studies concerning the great variation in endowment of the pupil population,

school men had become aware of the futility of classification on the basis of age. But instead of starting boldly *de novo* and without any tradition whatever to determine the best method of grouping children for instructional purposes, we have now for something more than fifty years been endeavoring to tinker with the old method as if its continued existence were inevitable, as if grade grouping and simultaneous instruction were synonymous, and the advantages of the latter could not as well be attained by grouping on any basis whatever.

Dr. W. T. Harris, then Superintendent of Schools in St. Louis, noted as long as fifty years ago the hopeless inflexibility of the grade system, which threw children together merely on the basis of approximate equality of chronological age, and held them together for an entire year, when the most promising were sent on and the worst pupils were held back and compelled to repeat everything and work another year, before an opportunity to advance was given them. His method of solving the problem consisted in the establishment of more frequent classification. The general effect of this was to produce a semiannual promotion period almost everywhere in the country; and many cities, as St. Louis itself, promote more frequently than that.

This attempted solution by reclassification, the first of several methods to be noted for mitigating the inflexibility of the grade system, is probably the best of them; but it is also to be noted that the fundamental need for this frequent reclassification arises from the fact that the original grouping was not based on any test of homogeneity. Why must the schools continually keep on reshuffling the children and trying to adapt them to the rigidity of the eight-grade grouping as if the calendar-

year system were unalterably basic? Granting the inevitability and indeed the utility of the principle of simultaneous instruction, why should we not contemplate a complete reconsideration of groups in terms of new and real units of homogeneity? In a large number of cities reporting promotion of individuals within the term, we have a costly and exceedingly clumsy method of readjustment. In one city, for example, more than three thousand children are given special promotions each semester. Although this method is followed in the name of progressive education, enabling, as it does, the brighter children to save time, it must appear exceedingly crude, when one realizes that the readjustments would not be necessary were the original grouping more in accord with what we know to-day of the variation among children.

Besides the St. Louis method of frequent reclassification and the similar method now largely in vogue of special promotion of individual children in the intervals between general reclassification, we may note three other attempts to mitigate the evil of the grade system. These three attempts may be designated as the: (1) equality of course and variability of progress; (2) equality of progress and variability of course; and (3) special attention to individuals within the group.

These various methods of mitigating the evils of the grading system by accommodation to it as basic rather than abandoning it, have been carefully described by Holmes and other writers in some detail and need not detain us here.⁶ Briefly stated, the method of equal course with varying speed, particularly illustrated by the

⁶ See W. H. Holmes, *School Organization and the Individual Child* (Davis Press, 1912), and T. S. Henry, "Classroom Problems in the Education of Gifted Children," Chapter I. 19th Yearbook of the National Society for the Study of Education, Part II.

practice of such cities as Cambridge and Portland, Oregon, represents the work of the eight years of the elementary school organized in such a way and in such groups and providing for such means of shifting from group to group as to allow a term ranging from six or seven to eight or nine years for the completion of the course, in this way presumably taking care of the varying types of ability. The same amount of work is provided for all, but the organization is so flexible as to allow each person to approximate the maximum rate of which he is capable. The method that has been referred to as equal progress but varying course is commonly known as the Santa Barbara method, and is organized on the theory that all children should be kept in school not less than and no more than the standard eight years. In order to accomplish this result the amount of work demanded is adjusted to the apparent ability of the child; the school being organized for three types of ability ranging from the minimum or core studies through average to more than average demands. The children progress through the grades at the rate of one year to each grade, but the brighter do more and the duller do less than the average grade standard.

The system of working with the individual has at least two phases: The one commonly known as the Batavia Plan involves very large classes in charge of two teachers, one going about to assist individual pupils who have difficulty, while the other is teaching the class as a whole. The other system is the one in use at the San Francisco State Teachers' College, where a number of children of approximate ability in charge of one teacher are presumably going each at his own rate of progress, following

the directions in a Bulletin especially prepared for the purpose and reporting to the teacher at stated intervals and at other times if assistance is required. There are under this last-named arrangement, no stated periods of reclassification at all, but the material to be covered is presumably the usual content of the eight-grade school—an extreme extension of the basic principle of the Cambridge plan.⁷

All of these efforts to mend the obvious inefficiencies of the present system of grouping children for the purpose of instruction have certain common patent defects:

(1) They assume that the eight-grade system of classification, based, as it is, largely on chronological age and on arbitrary calendar units without regard to the nature of children, is inevitable and must be adjusted to rather than abolished.

(2) They assume that all children can accomplish the work ordinarily done in the eight grades and that the only difference between them is the rate at which this work can be done, totally ignoring the existence of primary qualitative differences in ability. Even the Santa Barbara plan provides for doing the core of all the work, presumably doing less in order to graduate all the children in eight years—a theory which would imply that the variation is quantitative, showing itself in rate of progress and not qualitative, which would mean inability to do the work at all. . . .

(3) They assume that almost the entire school population require the same type of education., The so-called

⁷ For a description of the operation of this method see C. W. Washburne, "Educational Measurement as a Key to Individual Instruction and Promotions." Journal of Educational Research, Vol. V, p. 195.

Santa Barbara method does not provide for true qualitative differentiation.⁷ The various goals of accomplishment provided for are basically of the same type. . . .

(4) They totally ignore the fact that an unselected section of the population grouped together merely on the basis of similarity in chronological age cannot be efficiently instructed. They do not make provision for the fact that no matter how frequent the reclassification during the period of instruction, the teacher of such an unselected group will inescapably deal with the average ability of the group, leaving the dullest portion inevitably behind, and the most brilliant portion hopelessly unstimulated, unoccupied, and untaught.

Differentiated education as well as homogeneity is needed.⁸—Simultaneous instruction cannot, and indeed ought not to be abolished. The problem involved in simultaneous instruction is a problem of homogeneity of grouping. The method of grouping by grades has certainly, in the present state of scientific information regarding the variation in child ability, been outworn. A new method of organizing homogeneous groups for the purpose of instruction must be devised.

The utter unsuitability of grouping children for the purpose of instruction on the basis of mere chronological age may be noted from the following facts found by some of Professor Terman's students, all of which are probably

⁷ While it is not the province of a book on the general principles of elementary education to go into the details of modern differential psychology, some acquaintance with the findings and terminology must, however, be assumed as indispensable for the reader. The uninitiated reader is referred to L. M. Terman, *The Intelligence of School Children*, as well as *The Measurement of Intelligence*, and to H. Woodrow, *Brightness and Dullness in Children*.

typical of American schools everywhere:⁹ Among 112 kindergarten children there was found a mental age range from 3 years, 4 months, to 7 years, 7 months, and the range in I.Q. from 61 to 152 is one "from feeble-mindedness to very unusual superiority"—and one teacher is asked to adapt her work for this group to simultaneous instruction! In the case of 150 first-grade children, there was found a range in mental age "from 3 years to practically 11 years." "The highest mental age among these first-grade pupils considerably overlaps the lowest we have found in the eighth grade," says Dr. Terman. The range in I.Q. was from 45 to 145. In the 79 fifth-grade children studied, the mental age ranged from $7\frac{3}{4}$ to 15 years, and the I.Q. from 60 to 148.

It is clear in view of these facts that grade grouping involving, as it does, grouping on the basis of attained chronological age is a futile, outgrown method, which cannot be made any longer usable, by the various devices described, intended to hold it up. What then is the true basis of homogeneity for purposes of instruction? The answer must be emphatically that *if the school is to continue to offer a qualitatively undifferentiated course of study, there can never be any true basis of homogeneity.* Dealing though we are with the question of grouping children for purposes of work, we must for the moment step over the boundary and into the field of course of study. If children differ qualitatively in their ultimate potentiality *there is no method whatever of grouping them in such a way as to assist them in*

⁹ See L. M. Terman, *The Intelligence of School Children*. (Houghton Mifflin, 1919.)

accomplishing the same or approximately the same objectives.

The suggestion frequently made that children be graded in terms of mental age instead of chronological age is too easy, too ready-made a solution. This suggestion is, once again, based on the presumed inevitability of the calendar method of classification. Why "grade" children at all? At best, such regrading by "special promotion," disregarding for the moment the clumsiness of adjustment, the gaps in continuity involved in skipping, the utter heterogeneity involved from the point of view of maturity, provides for quantitative approximation—for rate of progress over the same ground.

But children differ qualitatively. The variation in intelligence quotient indicates not merely a quantitative difference in rate of development, but qualitative difference in ultimate development. Consequently the work set for accomplishment must be differentiated. We must abolish the single course of study, slightly swelled for the brighter and attenuated for the duller. This quantitative differentiation will no longer do. We must avail ourselves of the scientific information at hand. We must realize that the difference between the extremes is enormous, and that if we are to act on the theory that democracy means equality of opportunity, we must tax each type of ability to its utmost capacity.

"Our schools are failing miserably to solve the big problem of individual differences. Either we must resort to the instruction of pupils in homogeneous groups, or be driven to an individual system of instruction."¹⁰

¹⁰ F. S. Breed, "Shall We Classify Pupils by Intelligence Tests?" School and Society, Vol. XV, p. 406.

What then is the true basis of homogeneity? For school purposes, homogeneity of pupil grouping must be created partly in terms of differentiation of goals. Having differentiated the ends to be accomplished and having, indeed, established types of study in the schools in place of the present school grades as achievement goals, we must use the methods at hand for the purpose of differentiating and dividing into several groups the children who present themselves for instruction. An entirely new era lies before us.

Ultimate principles of homogeneity and differentiated education we cannot establish, since we are not prepared to isolate and measure all the factors involved, such as emotion and maturity. Even physiological age must wait until we understand its significance more clearly, although at one point, the entering age, it may well replace chronological age and supplement mental age now.

For the present we must group children and differentiate educational ends and processes on the basis of the one quality which we know how to measure with a high degree of accuracy—intelligence. Objectives will be set down in terms of what is approximately attainable by the groups as scientifically determined. “An ideal procedure will first ascertain the mental level of the child, then the level of intelligence necessary to master each school subject, and finally will fit the two together.”¹¹ It is to be noted then that this problem of classification in view of modern scientific knowledge can no longer be handled alone. It is primarily and fundamentally a curricular as well as a grouping problem. Ultimate group-

¹¹ H. H. Goddard, *Psychology of the Normal and Subnormal*, p. 292. (Dodd, Mead, 1919.)

ing will have to be in terms of attainable goals. The work to be accomplished will not run along parallel lines of rate of progress as in the Santa Barbara plan; or parallel lines of varying duration toward ultimate identity of accomplishment as in the Cambridge plan. *Indeed, the grouping will eventually be deliberately made for purposes of divergent rather than parallel goals, and always in terms of ultimate ability as scientifically determined.*

Two possibilities of adjustment are available, namely: In terms of mental age, or in terms of I.Q. A grouping on the basis of mental age presents momentary homogeneity of persons totally different in ultimate capacity, a homogeneity that ceases to exist almost at the moment when the group is brought together. A grouping on the basis of I.Q. presents a group varying in mental age but homogeneous from the point of view of ultimate capacity—a really like group, the individuals of which have arrived at varying stages of a quite similar course that is being traveled by all. While curriculum units and school possibilities at various stages will have to be determined in terms of mental age, the group itself will undoubtedly have to be made up on the basis of I.Q. It must be clear that classification made for the purpose of varying rate of progress is fundamentally not possible. Variation of quantity, giving the duller group the core and the brighter group more material of the same kind, is a more apparent than real adjustment. There is a great difference between those children who are potentially capable of full ultimate inheritance of the racial culture and those not so capable. The time has come for qualitative differentiation of a radical sort. We must

have school systems instead of a school system. We must recognize the existence of an aristocracy of intellect. Democracy consists in the equality of opportunity for all to develop to their ultimate capacity.

Dangers inherent in a unitary system of education.— For some years we have been bending our energies to improve the holding power of the public schools, to prevent the dropping out from school during the upper-grade years of large numbers of the population, and to increase the percentage of those who persist through the high schools. Our efforts have been rewarded. The increase in high-school attendance within the quarter-century, the growth of the high-school idea and, in consequence, the overwhelming increase in college enrollment are all too well known to need elaboration here.

All of this is, socially, of the highest value. But it involves disadvantages which were not realized at the beginning of the drive for a longer period of schooling for a larger proportion of the population, which should not be blinked. The larger the percentage of the population retained for the upper grades, the high school, and the college, the lower the average capacity of the group under instruction. The lower the average degree of intelligence, the lower the standard that must inevitably be set in all of these schools. In other words, the invasion of these larger groups into the American high schools and colleges is lowering the standards in these institutions and is actually making them poorer places than ever before for the education of the best minds. The high schools and colleges are probably not so stimulating, and the standards set not so high as they were

twenty-five or fifty years ago.¹² They are not so well suited for the training of leadership as they once were. The American University professors are, indeed, complaining of the deterioration in the quality of their graduate students.

Were we faced with the need of choosing between the education of a selected group and the neglect of the masses, or the education of larger groups as is at present the case, we should unhesitatingly choose the latter alternative. Undoubtedly it would be to the advantage of the community, if such choice were inevitable, to elevate the general standard of the largest possible percentage of the population, rather than develop a few to their utmost capacity and neglect the rest. But no such course is forced upon us. We are now pursuing one of these alternatives to the neglect of the most highly endowed, but there is no need for it. Differentiated education, developing each group, would be just to all, sacrificing none and utilizing for society as a whole all of its latent resources of intelligence. Under such a system each group could be held to its own maximum potentiality, and the lower levels of intelligence would not, as they do to-day, actually bar the way to education of the most highly endowed. This last statement is not fanciful. *It is a simple fact that for the small percentage of most highly gifted children so far discovered, there are in America no school facilities.*

Inadequacy of present adjustments in view of available scientific method.—The European school systems

¹² See E. L. Thorndike, "Changes in the Quality of the Pupils Entering High School." *The School Review*, Vol. XXX, p. 355.

are selective, but not scientifically so. They train special groups selected on the basis of social rank and of wealth. These bases are arbitrary and unjust, but they do make it possible to train a selected group for leadership—a group which is likely to contain many of the most highly endowed, as proved by the very importance of their position. An undifferentiated, single, democratic school fails to give any group special opportunities and is, for the most highly endowed group, an inferior educating means. We should not employ arbitrary methods of selection. We must call in psychology to our assistance. Until we do this, efforts at readjustment will be futile. The great average will always keep the attainments of the school system mediocre.

In response to this evident fact that group standards make for lowered and inadequate demands upon the most highly endowed, another means of adjustment is suggested in the form of the so-called achievement quotient. In place of the norm based on the median attainment of the group as a whole, the suggestion is made that we demand of each child results in the standard units of achievement in terms of his capacity, representing his achievement not merely in score attained, but in score attained in relation to intelligence. An identical attainment in spelling ability, for example, might be satisfactory for the child of median intelligence, very good for the child of less than median intelligence, and poor for the child of better than median intelligence. But the adjustment is, once more, in merely quantitative terms. "The pupils of great natural ability are required to do enough more than the average to keep their A.Q.'s near 1. . . . The pupils of little natural ability are not rebuked or

scorned for failures in gross achievement. They, too, are required simply to maintain their A.Q.'s near 1."¹³

Much easier and more direct would be norms for groups, and in terms of qualitatively differentiated goals. Our present standards of achievement are not usable. Until we have a real reclassification and a reorganization allowing for new ideals in accomplishment, scope rather than mere rate of progress, we shall never know what modern public education is capable of. We have before us a new era, and past attainments are no index of what the future holds for American schools. The time has come when every school must examine every child who presents himself for admission and determine his intelligence status. It seems remarkable that in view of the availability of modern scientific methods for cataloguing and making a mental inventory of the incoming classes, schools are still so slow in availing themselves of this instrument. It seems difficult to understand why, with this possibility at hand, schools still go on using the established method of admitting all children at age six, trying them out, and determining their ability after years of experimenting; for they are really not in a position, on the basis of school aptitude alone, until after two or three years of trial to make any statement of the child's ability.

Every school should make a mental inventory of all entering children. No school which is not prepared to give mental tests to all the children entering it ought any longer to be given a clean bill of health by any group of surveyors.¹⁴ Terman says that "in an average city, ap-

¹³ See E. L. Thorndike, Measurement in Education. 21st Yearbook of the National Society for the Study of Education, p. 1.

¹⁴ In illustration of the operation of this suggestion, see Z. A. Zornow and L. A. Pechstein, "An Experiment in the Classification of First

proximately a fourth of the pupils fail of promotion at the end of the first year.”¹⁵ This is probably an under-statement rather than an exaggeration. The numerous retardation studies made would rather tend to indicate that the group repeating the first grade is one-third. In the United States, there are many more than one million children constantly in the first grade. Using the Terman fraction, this means that every year some 250,000 children are being given first-grade instruction, regarding whom an intelligence examination would indicate that they have not yet attained a mental age enabling them to do first-grade work. Allowing fifty children to a teacher, this means a waste of effort and salary of 5000 elementary-school teachers in the United States every year.

The salaries represented by these 5000 teachers of children who have not yet arrived at the capacity to do first-grade work would undoubtedly pay for the expense of a psychological examination, provide for playground care for these children, and leave a large sum available for special opportunities for gifted children—all without the need of asking additional funds from the taxpayers. In view of the existence of this scientific information, schools should use the available funds in a more economical manner. In any competitive industry in which the most alert avail themselves of all scientific information at hand, one so conservatively adhering to established methods as the schools which to-day act on the basis of attained chronological instead of mental age, would be driven to the wall. The continuance of this haphazard method, by which a fact determinable at the

Grade Children Through the Use of Mental Tests.” Elementary School Journal, Vol. XXIII, p. 137.

¹⁵ L. M. Terman, The Intelligence of School Children, p. 42. (Houghton Mifflin, 1919.)

end of a half-hour examination is not found out by the schools until two or three years have elapsed and large sums of money have been wasted, seems no longer warranted.

The basic difficulty here is practice, based on tradition and not on theory, but rigidly frozen in statutory compulsory provisions that all children must be sent to school when the age arrives, be it six, or seven or eight, and that all children are required to stay in school a fixed number of years. Children differ, but the laws are uniform.¹⁶

Summary

The method of simultaneous instruction was a notable innovation, because it made mass education possible. Doubtless it is responsible for the hastening of the period of universal compulsory education, such as we have in America to-day. Its primary justification is, therefore, economic, although we are developing a technic which endeavors to utilize for the child's best interests the available advantages involved in group instruction.

But simultaneous instruction is not synonymous with grade grouping. This system, based on approximate chronological age, which involves the organization of educational units in terms of years, and holding children together for approximately the same number of years, is only one possible method of grouping children for purposes of simultaneous instruction.

As a matter of fact this basis of grouping has become exceedingly arbitrary and unreliable, in view of our ac-

¹⁶ The curriculum problem raised by the reclassification here suggested is dealt with in Chapter XIV.

cumulating knowledge regarding variation both in the rate of development and in ultimate potentiality. Mental age, physiological age, and conceivably emotional age and maturity age, all tend to group children with greater accuracy than the fact of chronological age. This is proved by the fact that of the children who enter the first grade in the United States, from a fourth to a third ordinarily fail of promotion. The index which marks them for admission, chronological age, is defective in one case out of three or four, even if we leave out of consideration those children who might have entered at an earlier age. Attempts to mitigate the evils of the system by various devices have failed. We need new principles of classification, new bases for homogeneity, that will be more effective than chronological age in grouping children of a similarly educable type.

Conceivably, we shall ultimately develop a schoolable age, composed of mental, maturity, emotional, physiological, and all other contributing factors. For the present, we may avail ourselves of the single well-established factor, intelligence status. But mere grouping for purposes of pursuing the same course at varying rates of progress will not do. It fails to tap all the resources of intelligence available. We must come to completely differentiated education, setting up varying goals for varying groups in qualitative, not merely quantitative, terms.

Problems

Numerous problems in school procedure arise out of the discussion of this chapter. Reserving for another chapter the matter of curriculum suitable for varying types of children as well as the exact determination of a

practical grouping for purposes of instruction, which may best be discussed along with the content of the courses, we may present here two of the questions.

1. Establish a set of bases, or outline procedure for the preparation of a set of bases, that shall serve as criteria for determining the admissibility of a child to school, for the beginning of formal education. The criteria referred to are other than those of mental age, which will, of course, be important. The establishment of the point of transition from home to school will involve a consideration of the home as an educative pre-school agency, the period of its maximum efficiency and the point at which it begins to wane; it will also involve an enumeration of the qualities essential for successful work under public-school conditions. When from one-third to one-fourth of the children who enter the first grade fail, wasting the efforts of thousands of teachers paid for by hundreds of thousands of dollars, it must be clear that the present method of admission is inefficient and that the problem is important.

2. Prepare a set of recommendations for improved compulsory education legislation. If children vary in ultimate potentiality, then the time of leaving school should probably be as variable as the time of entering.

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The 21st Yearbook of the National Society for the Study of Education is entitled "Intelligence Tests and Their Use." This volume is indispensable to the student interested in the problem discussed in the last sections of this chapter.

CHAPTER XI

TEACHER ASSIGNMENT—ORGANIZING THE STAFF FOR PURPOSES OF INSTRUCTION

Current practice.—We dealt, in the last chapter, with the question of organizing pupils for purposes of instruction from the point of view of homogeneity—organizing them in such a way that they might constitute groups that could be effectively taught together. We found a standard, traditional practice whose basic soundness we questioned. Regardless of the basis, however, as soon as we have grouped our children for instructional purposes, we face two questions: what to teach and how to make the best use of the teaching staff at our disposal. The former of these questions will be discussed in the three chapters which follow; the latter will engage our attention in this chapter.

In this matter of teacher assignment, as in pupil classification, we find an established practice. It, too, has its roots in the theory of grading and classification on the basis of approximate similarity of chronological age. The children enter school at approximately six, they are turned over to a teacher or teachers in the traditional numbers, and at the end of the year or of the half-year, if we are in a school sufficiently large to be fully graded, those of the children who have been able to do the work are passed on to the next teacher, and the first one receives a fresh

group of newcomers. And so it ordinarily goes through the grades, throughout the child's elementary-school career. The standard American system of organization, certainly below the seventh grade, is to provide one teacher for each grade, half-grade, or two grades in the smaller schools, and this teacher is ordinarily required to give instruction in all subjects of the course of study. Perhaps it would be following the old adage too far to suspect that she is "master of none"; but that she is an equally well trained and enthusiastic teacher of all would be a hazardous assumption. Occasionally, when the defect is very glaring, she arranges to "exchange" with another teacher—drawing for geography, for example.

Grade assignment and simultaneous instruction not inseparable.—But, granting that simultaneous instruction is an established and inevitable fact, this particular type of organization is not the only one possible. Grade teaching and simultaneous instruction are not synonymous terms, any more than simultaneous instruction and pupil classification by grade are synonymous terms. We can have the advantages of class instruction without the grade system as well as with it, so that if the latter has disadvantages, we may consider remedies.

The advantage of class or simultaneous instruction is primarily the financial one involved in the fact that one teacher shall be responsible at any given time for the care of a certain number—as yet scientifically undetermined—of children. So long as this demand is complied with and the children make the expected progress, we have simultaneous instruction, regardless of the basis of the organization. Many different bases are conceivable. The most efficient should be employed. Usage and experience,

while of importance, cannot be allowed as sole justification for school practice.

The "individual" system.—In the elementary school of the San Francisco State Teachers' College and in the city schools of Winnetka, Illinois, for example, simultaneous instruction is carried on by assigning to each teacher a number of children of approximately the same age, who, however, are not expected to proceed at the same rate, or perhaps, to do the same kind of work. The teacher does not give a great deal of oral instruction to the group as a whole. They need, therefore, not keep pace in their arithmetic or spelling or history. The work is organized in units for accomplishment outlined in bulletins, which the children are directed to follow. The teacher deals with each individual as circumstances demand. This is not typically grade instruction. The teacher is not a grade teacher. Classification on the basis of approximate ability and age is as much due to social reasons as to any need from the teaching point of view. A good teacher under this system might as easily deal with children along all stages of the educational route. Yet the requirements of simultaneous instruction are met; we have one teacher to a number of children.

This system, which has not received the consideration and experiment which it deserves, is referred to here primarily for the purpose of illustrating this fact that rigid grouping by grade is not an essential feature of group instruction.¹ Two possible modifications of present practice are to be dealt with in this chapter in some

¹ For other examples of individualization, employing group, but not grade instruction, see H. Parkhurst, Education on the Dalton Plan (E. P. Dutton, 1922), and A. H. Sutherland, Intelligence Tests and School Reorganization, Chapter III (World Book Co., 1922).

detail, i. e., the advancement of the teacher with the class, and departmentalization.

Advancement of the Teacher with the Class

American and foreign plans contrasted.—Should the teacher, at the end of the year or the half-year, when most of her pupils are promoted, continue on with her class, and if so, for how long a time? Would it make for an improvement of the teacher? Would it be of value to the pupils? Would it improve school practice? Would it have notable disadvantages that would make it impracticable? This system has been tried abroad, and speaking generally, it is true that more European schools follow it in whole or in part than do not.^{1a} An extreme application of the plan may be found in Copenhagen and other cities of Denmark, where the same teacher remains with his class throughout the seven years of the elementary school. The school authorities at Brussels report an equally interesting, if more cautious application. The young teacher is assigned to an entering class which he holds for two years, and if very capable, for four years. Most teachers return to an entering class at the end of two years, and then take their second group through four years. When they have traveled this route twice, after eight or ten years of service, they leave it entirely and begin to work in the two upper years which precede departmentalization. In this way the child may have the same teacher for two, three, four, five, or six years, but never for only one.

In America we do not, on the whole, follow the system

^{1a} France is a notable exception, the practice there conforming to the American system.

of advancing the teacher with the class. The practice is in effect in a few centers and there strictly within cycles or circuits which rarely if ever exceed two years. "The result is that a teacher, once assigned to a grade (or, as often happens, to a half-grade), whether originally from the standpoint of efficiency or not, remains commonly fixed in that grade, on the ground that she knows the work better than any other work, and can therefore do it better. . . . It is certainly an open question whether the doctrine of efficiency through specialization has not received too narrow an interpretation on the false assumption of analogy between retention of teachers in grade in the public schools and the subdivision of labor in factories, with its restriction of process and uniform repetition of limited movement."²

But the very existence of any kind of efficiency at all under this arrangement is questioned: "Many weeks are consumed before the average teacher can sense the peculiarities and needs of even a majority of her pupils, can establish the sympathetic and confidential relationships so necessary to grade teaching. Likewise, there must be a considerable lapse of time before the children can understand the teacher's attitude and intent. After these adjustments are made, an able teacher can make progress in her work in spite of her manifold duties. But, unbelievable as it may sound, no sooner are such good working conditions established than the fortunate, or shall we say unfortunate, among the children are promoted to another room and another teacher to make new readjustments."³

²J. Mahoney, "Advance of the Teacher with the Class." U. S. Bureau of Education Bulletin, 1915, No. 42, p. 7.

³D. DuShane, "The Intermediate Grades and Departmentalization." Elementary School Journal, Vol. XVII, p. 102.

Advantages and disadvantages.—In favor of promoting the teacher with the class, to summarize the arguments briefly, it is contended that it would be better for teachers and children to allow for intimate acquaintance; it would stimulate teachers and keep them from getting into a rut. Greater joy in work; greater unification of the pupil's work than is possible under the system of so many breaks; the fact that no time is lost in becoming acquainted with the group; the fact that the teacher knows what has gone before; that she dare not neglect any part of the work because she will be held ultimately responsible; that the arrangement tends to keep the teacher personally and professionally alive by lengthening the interval between repetition of work and the pleasure and consequent improvement and enthusiasm involved in seeing the children develop, a thing that is not possible where she passes a group through every five months—all of these claims are made for the proposal.

The objections that are made are numerous and important. Many teachers in America are either new or poorly trained and need to stay a long time in one grade to learn the routine, the subject-matter, and the best methods. Many teachers, adapted to pupils of a particular age, would fail with pupils of another age. Many teachers prefer the lesser labors involved in continuing in the one grade, and enjoy the constant change of children. They would lose enthusiasm in dealing with the same group. There would be an unfair distribution of teacher ability, some children having the poorer teacher for several terms or years. Children enjoy the change of teacher involved in the present system, and are protected against becoming dependent on the viewpoint of one per-

son. We have too great a turnover of teachers and even of pupils, making for a lack of the stability which is implied in the advantages of this system.

Departmentalization

The case for departmentalization.—Final statement of opinion in this matter should await a discussion of the second modification of present practice to be discussed, namely, the proposal that the upper grades of the six-year school be departmentalized, providing teachers on the subject rather than the group basis; teachers of geography, history, or music, for the children of all the grades involved, instead of all-subject teachers. No additional personnel is demanded. Using the number of teachers ordinarily assigned on the basis of enrolment, allowing the usual number of children per teacher, departmentalization proposes a different mode of assigning teachers.

The recommendation of promoting the teacher with the grade implied the demand that she master the complete content of several years of work. But the challenge is offered that she is not even capable of mastering all the work of any single grade. "The prevailing custom in the primary and intermediate grades of American schools," says one superintendent, "is to give each teacher almost entire charge of from thirty to forty-five children of a certain grade and to continue them under such tutelage for a period of either four and a half or nine months. At the expiration of such a period, all of these children except the failures are placed in charge of another teacher, when the same procedure is repeated. This plan works fairly well in the primary grades where the children are tract-

able and the course of study consists, in a broad sense, of only one or two main subjects, although a much better plan could be devised. When, however, the intermediate grades are reached, we find that a teacher has to instruct the children not only in drawing, music, spelling, writing, reading, and arithmetic, as in the primary grades, but also in hygiene, language, history, geography, manual work, nature-study, scientific temperance, dictionary study; we find that she has often two divisions in many of the foregoing subjects, is expected to teach the children how to study, supervise their study periods, make daily assignments for each subject, conduct opening exercises, correct papers, keep detailed record and plan books, fill out numerous reports, keep in touch with the home, supervise recess periods, attend teachers' meetings, and perform other duties assigned her.”⁴

Surely we have here a problem that demands consideration. Is it possible efficiently to do the work outlined, even assuming the excellence of preceding training? Is it possible to do this work on the basis of the rather meager training of the average American elementary-school teacher? Can we expect efficient teaching? Is it any surprise that the text writers of American school books are undertaking the teaching of the children and turning the American teachers into lesson hearers? What is to be done? In the seventh and eighth grades, the situation is evidently being met in an increasing number of schools either by the development of the junior high school, or the departmentalization of these grades. The possibility and desirability of departmentalization for the upper grades seems to be conceded. Can the same be

⁴*Ibid.*, p. 101.

done for the lower grades? If so, how far down can departmentalization be made effective? What are its advantages and its disadvantages?

Advantages claimed.—The advantages claimed for departmentalization by those who have tried it, are exactly the same for these grades as for the seventh and eighth grades or the high school; namely, that it vitalizes teaching by restricting the field, by giving teachers subjects that they like, by enabling them to do more study and making them more enthusiastic. In a word, it is a more efficient use of the teaching personnel, and militates against that mediocrity which must come with numerous subjects, and the monotony that must be the result of teaching the same grade for a number of years.

This system involves the reclassification of teachers on the basis of subject rather than on the basis of grade, a reclassification with which it seems difficult to see how any one could quarrel. It is to be noted that the work of the first two or possibly three years of work would probably in itself be regarded as one "field" or subject of instruction, and that the differentiation on the basis of curriculum content would begin possibly with the third and certainly with the fourth grade. Teachers who are endowed with a peculiar capacity for the early training of childhood would elect to have full charge of children for two or three years. Others would be required to develop an interest in the content and method of one subject of elementary-school instruction, or of the group known as the "fundamental" subjects.

The writer is not aware of any serious objection to the departmentalizing of grades below the seventh on educational grounds. Argument against it on administrative

grounds ought not to receive serious consideration. What is educationally desirable ought to be made administratively possible. That it can be so made is demonstrated by principals who report successful departmentalization of the grades under discussion.

Current alternatives to departmentalization unsatisfactory.—That the present teaching personnel is not so well rounded in capacity as to be able to meet successfully all the requirements of the modern elementary-school curriculum is so patent and universally known as to make discussion a waste of space and time. Rough compensations are now being made by the method of exchanging, whereby teachers specially capable in certain subjects, such as music and drawing, teach these courses to classes other than their own in exchange for work done by teachers of those grades. Another means of meeting this situation is by the use of supervisors of special subjects who endeavor to make up the deficiencies of new and poorly trained teachers by special work, and to keep up the standards by various means and methods of supervision, a device whose temporary and unsatisfactory character the supervisors will be the first to admit. Still another method of handling this situation is contributed by those normal schools which have ceased pretending that they can in two years turn out fully prepared eight-grade teachers, and require their students to specialize in certain sections of the elementary school.⁵ How much more desirable it would be to specialize in subjects rather than in grades will be indicated later.

⁵ See a series of articles by H. A. Brown, entitled "The Normal School Curriculum," in the Elementary School Journal beginning in Vol. XX, p. 276.

Organizing the departmentalized school.—The administrative machinery for operating departmentalization in a six-grade school has probably not yet been standardized. One superintendent⁶ presents an interesting system whereby the teaching group is divided into two halves. In this system each child spends one-half his time with one teacher who gives instruction in the so-called fundamentals, and is regarded as that child's home teacher, having many of the associations which go with the so-called class or room teacher. The other half-day he spends with several special-subject teachers. Two combinations are possible: The teacher herself may be for one-half the time a room teacher, and for the other half a teacher of one special subject, or one group of teachers may conduct home rooms in the two or three fundamental subjects for two groups of children, while the other group spend the entire day as subject teachers.

In Berkeley, California, A. J. Hamilton, principal of the Washington School, has developed an admirable organization for departmentalizing the upper four grades of his six-grade elementary school. His administrative unit for this purpose consists of ten groups of children, ten teachers, ten subjects of instruction, and a day divided into ten periods. His teaching corps is divided into two groups, five of them teaching special subjects, and the others being teachers of the fundamental subjects—one-half the total number of subjects taught, namely, arithmetic, penmanship, reading, spelling, and language. These latter are the classroom teachers, with occasional exceptions—each teacher meeting two groups for half

⁶ D. DuShane in "The Intermediate Grades and Departmentalization." Elementary School Journal, Vol. XVII, p. 102.

the school time of each group. These periods are not consecutive. In other words, the day is not divided into halves, one-half for each section. The teacher alternates throughout the day between her sections, giving the children the opportunity of varying the program.

The five special-subject teachers confine themselves respectively to music, drawing, history, geography, and physical education, each one teaching her specialty throughout the school. The reader may readily work out the details of this program. The day has a total of 100 periods of instruction to be provided for. Fifty periods are taken by five teachers of the fundamentals, and fifty by five teachers of special subjects, each teacher being occupied during the entire ten-period day. There are some modifications which need not be gone into here, involved in the facts that not all grades take all of the special subjects, and not every special subject is taught daily. This leaves room for subjects taught by general city teachers who do not form part of the local organization, as, for example, teachers of home economics and manual training. The adjustment is made by setting special-subject teachers free during part of the time for other purposes. The fundamental subjects receive their full five periods daily.

The first two years of work rightly form a definite specialty. Whether the teachers of the fundamentals should advance with their groups and, if they should, for how long a period, is an important question. In the Washington School they remain with them for a circuit of four years.

Immediate advantages.—Some of the obvious advantages which result from departmentalization may be

briefly noted. As regards the teacher, she is relieved from the drudgery of teaching subjects in which she cannot develop an interest and, conversely, secures an opportunity to develop along the lines of her special interest. She is relieved of many of the meetings with supervisors of special subjects, her preparation is limited to one field, she can provide for the gradual development and gradation of her work, can lay plans some years ahead. Other phases, partly in the nature of social advantages, will be noted later.

So far as the child is concerned, the system provides better teaching; a more even distribution of the advantages and disadvantages of good and bad teaching, since he comes in contact with the entire personnel, the physical advantages of moving from room to room, and the variety that comes with different teachers, both of which operate to minimize the factor of fatigue.

There are many advantages of a general kind, such, for example, as the opportunity to establish special rooms for music, geography, art, and the other subjects, and to carry on extensive projects going beyond the term and even beyond the year.

Can any question be asked so far as the children are concerned regarding the improvement and desirability of this method of specialization? Can it be doubted that a teacher definitely interested in one subject and freed from the need of keeping in mediocre contact with many, will be able to let go her grip on the text-book and become enthusiastic, interested, and creative? It would seem difficult to doubt that the work will become more vivid and more vital in the hands of a teacher giving instruction in her chosen field. Normal-school training,

with these points in view, will have an opportunity to turn out specialists by making better use of the time available, and the result will be a much finer teaching personnel even without increasing the length of time now required for preparation. Departmentalization would seem to present an opportunity to the American schools for greatly improving the quality of instruction without increasing the expense thereof, merely by a reorganization and a more intelligent use of the teaching personnel.

Departmentalization and Teacher Advancement in Combination

We may now return to the question of the desirability of advancement of the teacher with her class. It is claimed that this method has many advantages for both children and teacher; operating in the case of the teacher to prevent her from becoming less alert, less interested, and dulled by the monotony involved in the annual or semiannual repetition of the same work. It tends to keep her fresh and it aids the children by their being under the influence of one teacher who is acquainted with them. So far as the teacher is concerned, one would think that the advantages are rather obvious in spite of the fact that the unprofessional and uninterested teacher would object to the need for work and preparation involved in the method. Against the system it is objected that there are numerous administrative difficulties, such as graded salary scales and frequency of change of teachers inherent in our American system, and particularly the fact that those children who come under inexperienced and incompetent teachers would be at a great disadvantage in continuing with those teachers for very long periods.

Does it not seem that a proposal to departmentalize three or four of the upper grades of the six-grade elementary school preserves all the advantages and eliminates many of the disadvantages of the method of keeping a teacher with one group of children for a comparatively long period of time? In view of the fact that the teacher is given a fairly wide choice and can therefore select something most suitable to her preparation and taste, it ought to be decidedly possible to decrease incompetence, as many of the poor teachers under such a system would automatically become more competent. At the same time teacher and pupil would be given opportunity to develop curriculum units continuously without those gaps and jars that come with the change of teachers and with the fact that these teachers are always of uneven capacity over the curriculum range.

Ultimate social and general Educational values.—In addition to the advantages already noted—that the work would ordinarily be better done; that the training schools would have an opportunity to prepare their students more efficiently; that by being permitted to make their choice of subjects, a larger number of teachers would become competent in some one field and the incompetents would be more easily detected and weeded out; that natural enthusiasm for one's field would enable teachers to become creative, and to exercise initiative—certain other important advantages that would follow departmentalization should be noted:

Departmentalization would help most effectively to break down the unnatural and unhealthy barriers now existing between the various types of American schools. As was noted in a preceding chapter, we in America have

two distinct methods of teacher-preparation, and no method of advancing from one school to another. Ordinarily the elementary-school teacher entering the grade work finds it almost impossible ever to look forward to the high school, which implies special training in a single field of knowledge. It is entirely conceivable that beginning with the development of a single subject of interest in the normal school, a certain proportion of teachers having real professional ambitions and interests will find it possible by further study to develop proficiency along their line of aptitude, and to go on from school to school, through the junior high school to the senior high school and further still.

It has already been noted that one of the most deadening and unwholesome facts in American education is the impossibility of making a professional career in this field. The hindrance involved by the method of local units, signifying a new job and a new employer with every change of post, has been noted. The impossibility of looking forward ever to leaving the narrow confines of the elementary school, which faces the entire teaching body with so few exceptions that they are not worth noticing, is another of these hindrances. The removal of every barrier that stands in the way of forward and upward movement of the teaching body is of great value. Not the least, therefore, of the claims to be made in favor of departmentalization is the fact that it may stimulate the development of special interests which may lead to advancement from school to school and therefore vitalize the work.

The present conduct of the inherited institution of the teachers' institute has been charged with being void of

fruitfulness, consisting as it does either of so-called inspirational addresses, or "intensive" work of three or four lectures on some aspect of elementary-school procedure. It does not seem beyond the possibility of realization that under a system of departmentalization, teachers' meetings composed of specialists within a given field may become vitally significant and practical media for the democratic interchange of ideas that will replace the gatherings where the teaching force are sometimes merely "talked at."

Summary

The prevalent American method of assigning teachers to classes is based, traditionally, on the same set of facts as the classification of the children themselves. Teachers are ordinarily assigned to grades, and are expected to teach all of the subjects required by the course of study for their particular grades. But assignment on the basis of grade and simultaneous instruction are not inseparable. We can have class instruction without following the system of grade assignment. Whenever we have one teacher responsible for the instruction of a group of children we have simultaneous instruction. But there are various methods conceivable for constituting the group.

The "individual system" in use at the San Francisco State Teachers' College and elsewhere is a case in point. Here we have one teacher responsible for a group of children. But the children are grouped for social reasons, from the point of view of maturity. It happens that they are also of approximately the same status educationally, but that is a secondary matter. Each pupil pro-

gresses at his own rate and the teacher deals with each in turn individually.

In this chapter we deal with two suggested modifications of present practice, namely, the advancement of the teacher with her grade and departmentalization. The first of these modifications may be adopted alone. But departmentalization, in effect, produces the beneficial results claimed for both.

Advancement of the teacher with the class, which is extensively practised on the European continent, where there are instances of the same teacher remaining with a group of children throughout their elementary-school course, is in very little use in the United States. In some cities in America teachers are rotated within a cycle that commonly lasts two and practically never exceeds three years. Many advantages are claimed for this plan, but its adoption in America has not been gaining ground. It is claimed that there are many obstacles to its establishment, not to mention the fact that it is opposed in theory by some educational thinkers.

Departmentalization, by which is meant assignment of teachers on the basis of subject instead of on the basis of grade, so that each teacher teaches one subject to a number of classes, has been universally approved for the seventh and eighth grades and is now the uniform practice in junior high schools which have taken over these grades. The proposal is now made that the six-year elementary schools departmentalize the work of the upper four grades, regarding the work of the first two years as in itself a specialty. That it can be done, is demonstrated by enthusiastic reports from administrators who have tried it. The objection that the child requires some one

teacher to rely on for many reasons and purposes, is met by leaving him in the care of one teacher for approximately half the time to be instructed in the "fundamental" subjects, while departmentalization is applied during the other half of the day to the "special" subjects.

For the child, the advantages enumerated are the fact that the teaching, being done by specialists, is naturally more efficient; that the poor and good teaching is evenly distributed, so that no child suffers unduly from the poorer teachers; that there is a continuous process for each subject in place of the gaps; that it is possible to establish special-subject rooms with consequent advantages; that he comes in contact with a number of personalities daily instead of with just one; and that the variety makes for interest, and the getting about the building to the various rooms operates against fatigue.

For the teacher, the advantages enumerated are that she is relieved of work which she does not like or for which she is poorly prepared; that she has the opportunity to devote herself enthusiastically to one field in which she may be interested and in that way improve her teaching; and that it economizes time and effort in preparation, since the same reading and study may serve as preparation for a number of groups.

There are some advantages of a general social character, making for the improvement of education as a whole, which are important: In the first place, the normal schools, relieved of the necessity to prepare teachers in content and method for all of the eight grades, would be enabled to make better use of the available time to prepare special-subject teachers. In the second place, the development of interest in special fields of knowledge

and restriction of work to these fields would do away with a great deal of the supervision and special instruction now going on at teachers' meetings, and would place the teachers themselves in a position to do constructive educational thinking in their respective fields.

Finally, the definite development of special interests would set a certain proportion of the teachers on the road to higher study and advancement from the elementary school to the two or even three other links in the American educational system. This would help to break down the present barriers which almost entirely bar the progress of elementary-school teachers, which are a deterrent to ambition and tend to create an undesirable hierarchy of teacher groups.

Problems

1. Canvass a group of representative teachers, administrators, and teacher-training school officers who oppose the departmentalization of the six-grade school, list the causes for their opposition, and, in view of these statements, prepare a memorandum of opinion regarding the practicability and desirability of the proposal.

2. It would be impossible to make an immediate change effectively in any school system, since the development of special interests in the teaching staff is requisite. Prepare a plan for the gradual introduction of the departmental idea.

3. The daily program for a departmentalized six-grade school is an important but as yet unsettled matter. On the basis of the two schools described in the bibliography and the Berkeley program referred to in the text, prepare a program of your own.

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CHAPTER XII

THE CURRICULUM AS A GENERAL EDUCATIONAL PROBLEM

An unsettled question.—Asked to name the one problem of outstanding importance in a school, the average person would point to the curriculum or course of study. After all, it is the activity carried on in the school to which every other element is subordinate. Plant, equipment, books and other material of instruction, teaching personnel—all converge toward the central point of study.

How interesting then to note that the elementary-school curriculum is probably the one feature with which school people are to-day least satisfied, and which is being attacked most freely. "The present program of public education," says Professor Bobbitt,¹ "was mainly formulated during the simpler conditions of the nineteenth century. . . . A program never designed for the present day has been inherited." Another thinker,² more drastic in his criticism, announces that "the traditional curriculum may be characterized as:

"Aimless; it does not function in the lives of pupils.

"Lifeless; mere form subjects predominate.

"Disconnected; fourteen school subjects are treated as

¹ F. Bobbitt, *The Curriculum*, p. iii. (Houghton Mifflin, 1918.)

² J. L. Merriam, *Child Life and the Curriculum*, p. 52. (World Book Co., 1920.)

unrelated except when arbitrarily and superficially correlated as schoolroom arts.

"Congested; the crowded situation is due to the treatment of empty details.

"Wasteful; 'Progress through the grades' consists of 'marking time' and 'busy work.'

"Untimely; the traditional curriculum is not apace with the vital issues of the day."

The reasons.—What are the causes of this dissatisfaction so generally found with the course of study? Several facts are worth bearing in mind. In the first place, education in the sense of public instruction for the masses on a generous and professional basis, is an institution of exceedingly recent origin, being less than a century old in America. In the second place, it seems only natural in extending education to the people, that the struggle should have centered around the need for developing facilities and support rather than around any particular philosophy of education. So far as educational aims were concerned, it seems that those were already established, particularly in the days when education for the masses consisted of the merest rudiments or tools of modern life.

Again, this development of mass education has been taking place during a period which is itself a transition in the history of humanity. The development of the sciences; the establishment of cities; the political revolutions and the resultant changes in the form of government and of social concepts; the industrial revolution and its far-reaching changes in economic and social relations; the abolition of many well-established relations

such as those which inhered in the institution of feudalism; these changes, as history goes, are so recent as to be practically contemporary.

The very fundamental motives underlying mass education have been changing within the period of its institution. Beginning as we did with the purely religious motive, followed by the political motive inherent in democratic government under universal franchise, the motive of the moment must take into account the increasing complexity of modern life, requiring as it does many skills, abilities, and capacity to adjust, all of which implies ever increasing equipment, and an ever longer period of training.

Public education has gone through an evolution comparatively easy to trace. Beginning as a luxury reserved for those of high station it became through the accident of the point of view of the Reformation a religious need to be supplied by the state or church or some philanthropic agency. With the development of political democracy, it has become a definite secular function based on political motives; and finally in America it has become an institution of which every one is required to avail himself by compulsion of law to an ever increasing age, and almost everywhere beyond age twelve.

How very new is the social concept of the rightness of equality of educational opportunity at the common cost of the social group, is easily realized by the American who sees the struggle for its establishment going on this very day. Archaic though it may seem in the American democracy, one may still hear the outraged English taxpayer demand to know why he "should be expected to contribute anything to the education of any one else's

son" after he had "paid a large sum for the education of his own."³

It is true, then, that the course of study under which the schools are operating to-day is the result in part, of the operation of tradition. Like so much else of school practice, it has never been consciously formulated on the basis of rigid scientific thinking. Coming into being as it has without any theory, it is merely a tradition. Generally speaking, it may be said that the process has heretofore never been gone through of analyzing what it is that should be expected of the common school as a conscious social agency for the training of youth. To quote Professor Meriam again: "The traditional curriculum is a growth, not a construction; a product of social and industrial activities rather than an instrument in the improvement of such activities. We are, therefore, unable to look for ideas, principles, or policies that control in the selection and organization of this curriculum."⁴

There have been notable thinkers, theorists, and reformers in the field of the common school whose contributions are vitally effective and influential to this day. Men of the stamp of Pestalozzi, Froebel, and Herbart have made public education their eternal debtor. Their influence, however, their experiments, their thinking, and their writing have been primarily concerned, so far as any permanent results are involved, with method, management, and teaching technic. There has always been an underlying assumption in their work of the sufficiency of the existing material of the school as an educating

³ See D. V. Smith, "England's Problem of Education for All." *School and Society*, Vol. XV, p. 513.

⁴ *Op. cit.*, p. 21.

agency, if only the technic of imparting this material could be improved.

It is possible to secure a very fair view of the state of mind of these educational reformers, when one realizes that to-day a prospective teacher would rarely if ever be asked his theories of the curriculum. It is not expected that he should have any. The important question is whether he is competent to teach—the material to be taught being always taken for granted. The average person without previous professional training who is preparing himself to teach, rarely troubles himself to ask what it is that he ought to teach. The eternal efficacy of the traditional curriculum to achieve the unformulated goal of public education seems to be taken for granted with a security that is beyond question. All that the prospective teacher seems to need is a mastery of this material. This unquestioned faith in the mere process of learning and the mere end of knowledge is of long standing, each person apparently believing in it as a means of achieving the thing which to him seems good.

Booker T. Washington, in his autobiography, "Up From Slavery," reports that during the period immediately following emancipation one of the "two ideas constantly agitating the minds of the colored people . . . was the craze for Greek and Latin learning. . . . In every part of the South during the Reconstruction period, schools both day and night were filled to overflowing with people of all ages and conditions, some being as far along in age as sixty and seventy years. . . . There was a feeling that a knowledge, however little, of the Greek and Latin languages would make one a very superior hu-

man being, something bordering almost on the supernatural."

"We have aimed," says Professor Bobbitt in pointing out this lack of formulation of the goals of education,⁵ "at a vague culture, an ill defined discipline, a nebulous harmonious development of the individual, an indefinite moral character-building, an unparticularized social efficiency, or, often enough, nothing more than escape from a life of work."

Finally, a partial explanation of this lack of definiteness of formulation is the narrowly historic one found within the field of educational practice itself. One of the most important keys to an understanding of many of the problems and conditions of public education to-day is the fact that the elementary school was not created to be a first school and to prepare for the next step, namely, secondary education, as is the case in America to-day. Had the elementary school been consciously organized for the purpose that it is serving in America to-day, its aims and the demands made on its product would necessarily have been clarified by pressure from above. The secondary school would readily enough have made its requirements known. But the elementary school was never intended to be a preparatory step in the process of education. The development of elementary education is really synonymous with the development of mass education—a mass education which definitely excluded the most fortunately situated classes, the children of these classes being already well provided for by the secondary schools and the universities. At the time of the beginning of the movement for mass education, it seemed quite natural that elementary education should be synonymous

⁵ F. Bobbitt, *The Curriculum*, p. 41. (Houghton Mifflin, 1918.)

with the merest minimum of knowledge. Following this humble origin, the process of changing the curriculum has been not one of conscious formulation in terms of the objective to be attained, but rather one of extension and adaptation. At its best it undertook to give complete preparation for life, since there was no next school to which to leave certain things that might better have been deferred.

In the centers presided over by the Brethren of the Christian schools, reading, writing, arithmetic, and religious instruction constituted the course of study. In early Massachusetts we find the curriculum consisting of reading, writing, arithmetic, English language, and spelling. Pestalozzi began to develop sense training and added subjects such as drawing and writing, geography and nature study, gymnastics and singing. So it has gone. Time and place and history, but not rigid science, have effected changes in the curriculum.

The problem to-day.—To-day in America the elementary school is clearly a first step in the educational process, since, in accordance with the tendency in progressive States, the child is not permitted to go to work at the time of his dismissal from the six-year elementary school. Duplication and overlapping are, therefore, no longer necessary on the theory that many of the children will not go on to high school. Given normal intelligence and adequate law enforcement, they will all do so. How then shall we use the available time? What shall we teach? What methods shall we use to make the child most efficient from every point of view?—his own as well as that of the community; his happiness as well as his productivity?

These questions represent the great responsibility of

the teaching profession to-day. To what end or purpose will effective school work serve, if we have not set ourselves clear goals toward which we are consciously tending? The problem can be formulated clearly enough. It is simply a question of how we may effect most economically from every point of view, including finances as well as wear and tear, the best social results, caring at the same time for the fullest expansion and share of the best in life by the individual; not sacrificing him unnecessarily for any conceived general community aims, but on the other hand providing for the maximum possible development of each individual within the circle of social well-being.

Whatever may be the right way to achieve this goal, one thing is now clear beyond the need of further discussion: the question of the curriculum is not the simple question of subject-matter. The curriculum can no longer be confused with the course of study any more than education can to-day be confused with teaching or instruction. Just as teaching is rapidly becoming one phase of education, so the course of study, consisting of books and other materials by means of which the pupil acquires knowledge and information, is but part of the group of activities to be known as the curriculum, which in addition to knowledge and information must provide activities and facilities for the conscious ends of useful habits, attitudes, ideals, motives, and as conscious inhibitions of certain non-useful and antisocial tendencies.

One of the greatest sources of dissatisfaction with the curriculum of to-day is this very tendency, still so deep-rooted, of considering mere learning as the sole objective of education. The obvious fact that knowledge does not

necessarily function, and that the thoroughly useful person is the one who, knowing things, does them; the obvious fact, in other words, that education must ultimately consist in a process which affects the emotions, which motivates, which equips with habitual attitudes, is still too little known.

Courses of study, implying only the mastery of subject-matter and involving only the process of learning, are part of, but not coextensive with, curriculum. "The most important function of the school is to educate. Instruction preserves and transmits to mankind the treasures of acquired truth. Education enlightens man's conscience, strengthens his judgment, and tempers his will. To think well, to judge well, and to be able to govern oneself are worth more than to know much. A school which does not educate, makes teaching a mere mechanical process, a calling without social significance, without dignity, without perspective."⁶

Basic principles.—It will make for greater clarity of thought if we set down certain important, if obvious factors that must condition every step taken toward the solution of the problem of the curriculum. It is not possible to set down a special set of principles for each of the links in the chain of the education of the child. Each school that he passes through is, for the child, but one step toward the general goal of education, however that goal may ultimately be defined. These goals, therefore, the objectives of education, dealing with single individuals, must be a single set. The contributions of various

⁶ G. Leygues, "L'école et la vie," as reprinted in French Educational Ideals of Today, edited by F. Buisson and F. E. Farrington. (World Book Co., 1919.)

links in the school system toward the ultimate objectives, in the education of the individual, may eventually be subdivided, but the objectives are single—so far as the individual is concerned, all the schools have the one aim.

This objective has two phases. We are not preparing the individual to live alone. He will have not only to make adjustments, but also to make contributions, to carry his share of the load, to take responsibility for carrying forward the general welfare. On the other hand, we do not intend completely to submerge the interests of the individual to those of the group. That, fortunately, is no longer necessary. Within the group, we are preparing for a many-sided development. The general goals, therefore, are to be in two principal groups, the individual and the social.

In some respects, the formulation of the curriculum must be frankly a social process, in terms of social goals. But the worthiness of these goals must be carefully guarded. We do not admire the social philosophy on which selection for educational purposes was based in Germany. Social goals are, conceivably, of many kinds and vary in the degree of desirability. Economic goals, for example, take care of themselves. There are interests which make themselves heard when they are threatened as, for example, by lengthening the compulsory education period or by prohibiting child labor. These interests make clear the need for a vocational curriculum and consent to national subsidies for that purpose. The political goals of good citizenship are obvious, and are much to the fore in present educational discussion. The worthiness of these goals will depend on the excellence of our general political philosophy. On the other hand, the social cul-

tural goals, using the term in the narrow sense of the utmost popularization of the inheritance of the arts, and improvement of the general recreational tone, the use of leisure for the best in drama, music, literature, and the other arts—these goals have in our schools heretofore been neglected. To this set of goals we shall have occasion to return in the chapter on the psychological aspects of the curriculum.

We in this volume are dealing with one particular school in the chain of education, the first school. The general educational goals established, the process for our purposes must be to inquire as to what portion of the problem comes within our field, what is our share. Toward some of the goals we must make a beginning, though we shall not see the ultimate product. Some of the goals we do not specifically undertake at all, because the child is too immature from their point of view during the period that is assigned to the elementary school. Some of the goals we achieve entirely because it is possible to do so within the allotted period, and because the achievement is essential for the next step in education.

In other words, the elementary school will be expected to make a partial advance toward some of the ultimate goals of education as, for example, to begin the establishment of sound social and physical habits; as regards this section of its work, it must participate in the formulation of ultimate goals and aim directly at achieving them. The school is responsible for the beginning, but not the completion of, certain definite goals which are to be continued in the next educational link, dealing with such subjects as history, geography, literature, and mathematics. As to these, the school must demand that the

junior high school definitely clarify its prerequisites and that these prerequisites be attainable in order that the elementary school may have a clear vision of the requirements to be met. Finally, the school is responsible for those of the goals which can be completed within the six years, such as the fundamental tools of reading and writing. This unit belongs almost entirely to the elementary school, and its complete and satisfactory achievement is taken for granted as basic in the junior high school.

The work of the elementary school may go on to-day with the definite assumption that for none of the mentally normal children is this the only opportunity for education that the child will have and, further, that all the work is definitely conditioned by the present degree of maturity of the pupil community and by the valid demands of the junior high school. The elementary school carries the children to one boundary line in education and must conscientiously prepare them for the next step.

To sum up, the elementary school—

1. Does not participate in the achievement of some of these general goals.
2. Considers some of these goals almost entirely within its scope.
3. Makes a beginning toward, but does not actually achieve the others. Toward these its relation is of two kinds:
 - (a) the quite general and not definitely measurable goals such as social and health habits.
 - (b) those for which the junior high school may specify demands, and achievements in which may

be measured—goals which, unlike fundamental processes, do not belong entirely within the elementary school, but toward which a beginning may be made.

The general educational goals have certain conditioning factors of importance. In the first place no objectives can be laid down without regard to certain facts inherent in the lives of children. The educative process cannot, for example, be indefinite in duration. The average length of human life is fairly stable. During the period of his education the child is provided leisure for that purpose at the cost of older members of the community who are producers. The longer the period of preparation, the shorter the remaining period of productivity. Too short a period of education may make the longer period of productivity less efficient, indicating that a longer period might have been invested wisely. Too long a period of education may make even efficient productivity too short to pay. Doubtless there is some point in the life of each individual beyond which freedom from productivity and from participation in the activities of life for purposes of preparation for such activity, is not economical from the social point of view, and begins to pay diminishing returns. This period, if it exists, must vary with the individual, depending on endowment, temperament, physical condition, and other factors. Even the short period of compulsory education is doubtless too long for a certain proportion of the population.

This fact of variation, again, probably invalidates the universality of educational goals. It may be that the variation takes care of itself in the differences of the de-

gree of achievement or approach to completing the goals, or it may be that different sets of goals must actually be set up, both as regards those from the point of view of the individual and those from the point of view of the social group. The days of blind and superstitious faith in educational processes *per se* are definitely over. While we spend greater sums and energy than ever, while we gladly keep children at leisure for purposes of education for longer periods than ever before, the investment should be wisely made. Liberality should not be misdirected. Undoubtedly some children are to-day receiving more leisure and expenditure than they warrant, while others are not receiving enough either from the point of view of their individual happiness or from that of their possible contribution to society. We shall have to examine the human material and make the best possible use of it.⁷ The fact that education must proceed on intellectual, emotional, and physical bases, and that variation occurs in all of these, will be referred to in detail later.

An approach to the first problem of curriculum formulation.—We must now face the first step of curriculum construction, i. e., the formulation of general goals. One of the earliest students of education who did formal thinking on the subject of the curriculum was Herbert Spencer. It is interesting to note that his work, which definitely pointed the way to the method of curriculum derivation now coming increasingly into use, was the result of a historical accident. Spencer was primarily interested not in the problem of the curriculum as such, but in the place of science in the general scheme of edu-

⁷ See J. L. Horn, "Caring for Highly Endowed Pupils." *The School Review*, Vol. XXIX, p. 777.

cation. His great contribution toward curriculum discussion arose, not out of pure interest in curriculum formulation, but as the result of a controversy. He did formal thinking on the curriculum primarily for the purpose of indicating the great importance of science as one means of equipping the individual for modern life. Be that as it may, it was Spencer who first thought out a method of attacking this problem formally and deriving principles for curriculum construction on a sound and defensible basis. The student may best be introduced to Spencer's method of attacking the problem by some quotations from his justly famed essay: "What Knowledge Is of Most Worth."

"If there needs any further evidence of the rude, undeveloped character of our education, we have it in the fact that the comparative worths of different kinds of knowledge have been as yet scarcely even discussed—much less discussed in a methodic way with definite results. Not only is it that no standard of relative values has yet been agreed upon; but the existence of any such standard has not been conceived in any clear manner. . . . The first in importance, though the last to be considered, is the problem—how to decide among the conflicting claims of various subjects on our attention. Before there can be a rational curriculum, we must settle which things it most concerns us to know; or, to use a word of Bacon's, now unfortunately obsolete—we must determine the relative values of knowledges. To this end, a measure of value is the first requisite. And happily, respecting the true measure of value, as expressed in general terms, there can be no dispute. Every one in contending for the worth of any particular order of information, does so by show-

ing its bearing upon some part of life. In reply to the question, 'Of what use is it?' the mathematician, linguist, naturalist, or philosopher explains the way in which his learning beneficially influences action. . . .

"How to live?—that is the essential question for us. Not how to live in the mere material sense only, but in the widest sense. The general problem which comprehends every special problem is—the right ruling of conduct in all directions under all circumstances. In what way to treat the body; in what way to treat the mind; in what way to manage our affairs; in what way to bring up a family; in what way to behave as a citizen; in what way to utilize all those sources of happiness which nature supplies—how to use all of our faculties to the greatest advantage of ourselves and others—how to live completely?" . . .

"This test, never used in its entirety, but rarely even partially used, and used then in a vague, half-conscious way, has to be applied consciously, methodically, and throughout all cases. It behooves us to set before ourselves, and ever to keep clearly in view, complete living as the end to be achieved; so that in bringing up our children we may choose subjects and methods of instruction, with deliberate reference to this end."

We have gone beyond Spencer in his unbounded faith in the functioning of knowledge. He seems to assume throughout that the end of education is to convey that knowledge which is of most worth. But we are continuing his very line of thought, and it is becoming almost universally accepted that the method of curriculum derivation is to look at complete living as the end to be achieved, to classify life's activities and to select for

school purposes such knowledge, habits, and experiences as will best achieve the purpose of complete and most fruitful participation in those activities. It is Herbert Spencer who gave us the key to the solution of the problem, the means or method of procedure for scientific curriculum derivation. "To prepare us for complete living," he states, "is the function which education has to discharge; and the only rational mode of judging of any educational course is, to judge in what degree it discharges such function."

We have reached solid ground. We are to determine, first, rather broad and inclusive classifications of the activities of life, and to discuss thereafter how the school may best function to aid in preparing for and achieving full and complete living. Spencer made a direct attack on this problem, attempting not merely to group activities, but to enumerate them in the order of their importance:

"Our first step must obviously be to classify, in the order of their importance, the leading kinds of activity which constitute human life. They may be naturally arranged into: (1) those activities which directly minister to self-preservation; (2) those activities which, by securing the necessities of life, indirectly minister to self-preservation; (3) those activities which have for their end the rearing and discipline of offspring; (4) those activities which are involved in the maintenance of proper social and political relations; (5) those miscellaneous activities which make up the leisure part of life, devoted to the gratification of the tastes and feelings."

Although the statement of goals is changing and becoming more clear; although, indeed, no statement of

goals can ever be regarded as fixed, either in time or in place, this method established by Spencer stands; namely, if you would know what to do with the time and energies of the child placed at your disposal and made your responsibility, establish your objectives, and then proceed to outline your means of reaching them in terms of subject-matter and of method, sequentially ordered and adapted psychologically in the terms of the child who is the subject of the educational process.

The development of this process of curriculum formulation and its continuing refinement in procedure from the time of Spencer to the present may be seen rather clearly if, bearing in mind his contribution, we review the position of Professor Bobbitt, whose work represents an interesting example of conscious, deliberate curriculum thinking to-day. Spencer seems to rely for education rather heavily on the formal imparting of knowledge, whereas Bobbitt's point of view is that education can be and in fact is, accomplished not only in school but everywhere, and that some things are indeed better learned elsewhere and should not be dealt with in school. Only such things should be learned in school, thinks Professor Bobbitt, as can there be learned most economically. Again, Spencer tacitly assumes that education consists of conscious effort in the acquiring of knowledge, but Bobbitt points out that educational advancement takes place on two levels of experience; namely, the play level and the work level, so that much desirable education is gained quite unconsciously and without deliberate supervision on the part of any institution. It follows then, that not all education takes place in the school for two reasons: first, that much of it occurs on what he calls the play

level, and secondly, that much of it can be better accomplished outside of school. An insight into his theory of curriculum derivation may be had from the following excerpt:

"The central theory is simple. Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires only that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, attitudes, habits, appreciations, and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite, and particularized. The curriculum will then be that series of experiences which children and youth must have by way of attaining these objectives. . . . The Curriculum is that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects what adults should be. . . .

"The curriculum of the schools will aim at those objectives that are not sufficiently attained as a result of the general undirected experiences." The goals, in general terms, as formulated by Bobbitt are: (1) training for occupational efficiency; (2) education for citizenship; (3) education for physical efficiency; (4) education for leisure occupations; (5) education for intercommunication.

Omitting, for the present, consideration of an exact formulation of the experiences, subjects, and methods as

well as consideration of which part of these experiences is better attained in school, and which in general undirected living, we must direct our attention to two other influential statements of the general goals of education:

Professor Bonser in his recent stimulating attack on the problem of the elementary-school curriculum⁸ enumerates "four large fields of purposeful activity" as follows: "(1) Maintaining and preserving life and health through the use of the material necessities of life and the appropriate care of the body; (2) producing the necessities and luxuries for which man feels need, and making these available through exchange; (3) coöperating with others in maintaining the protective and regulative measures for the common good, the institutions of life, the family, the state, the vocation, the school, and the church; (4) occupying leisure in pursuits engaged in for the enjoyment which they yield." These he restates in other terms as follows: (1) health; (2) practical efficiency; (3) citizenship; (4) recreation.

Finally we come to a recent semiofficial statement of the goals of education made by the Commission on the Reorganization of Secondary Education.⁹ "The Commission regards the following as the main objectives of education" and holds "that they should constitute the principal aims in education": (1) health; (2) command of the fundamental processes (of reading, writing, arithmetic, oral and written expression); (3) worthy home membership; (4) vocation; (5) citizenship; (6) worthy use of leisure; (7) ethical character.

So much for the first step in curriculum construction.

⁸ F. G. Bonser, *The Elementary School Curriculum*. (Macmillan, 1920.)

⁹ U. S. Bureau of Education Bulletin, 1918, No. 35.

A formulation of goals, a discussion of the complete inclusiveness of these goals, of their relative importance, of the conflicts or harmony that may exist as between the various statements of goals; their validity and finality will not be undertaken here. The eventual formulation may be left for still further consideration by the educational public, always bearing in mind that very likely there will never be permanence of goals in a world that is constantly changing and under institutions that are constantly being subjected to criticism. It is enough that the method has been established.

Summary

Notwithstanding its obvious importance as the central school point toward which all other activities must converge, the curriculum represents to-day an unsolved problem, and current practice is being subjected to severe criticism.

The comparatively short time that has elapsed since the establishment of universal public education in America; the fact that early efforts perforce concerned themselves with securing support and establishing the institution itself rather than with any philosophy of education; current changes in science, economic arrangements, and social ideals which naturally have their influence in antiquating preceding curriculum ideas; the fact that the elementary school heretofore has been the sole, not the first school attended, which caused it to undertake certain activities essential for complete participation in adult life, but which from an educational point of view might better have been deferred—these facts explain in part the present curriculum situation.

The elements of the problem of the curriculum as we

face it to-day are these: (1) The elementary school is a first, not a final school, doing away with the former need for overlapping and duplicating some of the work of the high school. (2) We must establish a just balance between the child's individual good and the social welfare. (3) Learning is not synonymous with education, hence course of study is not coextensive with curriculum, which term must include all the activities, including learning, calculated to affect conduct and lead to right, well rounded living.

There are certain basic principles underlying a solution of this problem: (1) The fundamental educational goals must be single and the same for all schools, just as the education of the child must be continuous, leading toward these goals, regardless of the number of schools which assist him toward those ends. (2) These general goals are to be of two kinds, individual and social, and neither ideal may be achieved at the cost of the other. A just balance is to be maintained.

The general educational goals established, we face next the question what the contribution of the elementary school toward their achievement is to be. In general, we may say (1) that some of these goals are excluded from the elementary school because of the immaturity of the child during the first six years of school; (2) that some of the goals, by virtue of their character as basic to further progress, belong almost entirely within the elementary school; and (3) that in the case of some of the goals, the school makes a beginning toward, but does not expect completely to achieve them within the allotted period. This last group is of two kinds: (a) quite general and not definitely measurable; (b) preparatory to second-

ary education and definitely susceptible to specification and measurement.

The formulation of curriculum objectives is conditioned by certain inescapable factors which must be allowed for, among them the following: (1) Human life has a definite, fairly ascertainable duration, and the period that may be allowed for preparation is, therefore, definitely limited by that which is to remain for productivity. (2) The fact of variation among children means (*a*) that different compulsory periods should be provided, and (*b*) that within the period of education different sets of objectives should be set up. (3) Education proceeds on physical, intellectual, and emotional lines, and from all three points of view we find variation.

The present method of attacking the problem of the curriculum is to look at complete living as the end to be achieved, to classify life's activities, and to select for school purposes such knowledge, habits, and experiences as will best achieve the purposes of complete and fruitful participation in those activities. Several attempts at a formulation of the ultimate objectives have been made. Assuming that no existing statement is probably complete, final, and fully satisfactory, we may adopt as a basis for our discussion the statement of educational objectives made by the Commission on the Reorganization of Secondary Education, these being seven in number, as follows: (1) health; (2) command of fundamental processes; (3) worthy home membership; (4) vocation; (5) citizenship; (6) worthy use of leisure; (7) ethical character.

Problems

This chapter deals with one central problem regarding whose solution no claim of finality can be made. Obviously, therefore, the task to which the student may devote himself in connection with this discussion is to test the validity of the proposed procedure, to attempt the formulation of new modes of attack, or to undertake refinement and perfecting of processes in one of the sub-problems of the discussion such, for example, as making a definite boundary line in terms of expected achievement between the elementary and the junior high schools.

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CHAPTER XIII

THE CURRICULUM AS AN ELEMENTARY SCHOOL PROBLEM

The province of the elementary school.—We have seen, in a general way, the method that is being pursued in the formulation of broad educational goals. We come now to the more specific question of the province of the elementary school. The conclusion arrived at in the last chapter will be recalled, i.e., that the elementary school, being definitely confined to the first six years of formal education and, consequently, dealing with a certain stage of maturity, will probably not undertake to deal with every one of the established objectives of education, and that of those toward which it aims, the school will complete some and make a certain advance toward others, without expecting to see results within the period of the educative process.

As regards these latter objectives, we may recognize two classes, those of a very general character, such as health and the social virtues which must continually go forward without any particular reference to formal steps, and those formal objectives which require sequential training and toward which, while completion is not asked, the school is expected to make a rather definite beginning on which the junior high school can count and build.

We come then to a specific examination of the objectives, for the purpose of defining the sphere of the ele-

mentary school. We may adopt for our purposes the objectives outlined in the statement of the Commission on the Reorganization of Secondary Education, both because it is a formal expression which represents an organized group of educators and because, being the formulation of a secondary-school group, it gives us some indication of the boundary line which that school expects to establish and of the demands with which it expects the elementary school to comply. The objectives outlined by the Commission, then, are seven in number: (1) health; (2) command of the fundamental processes; (3) worthy home membership; (4) vocation; (5) citizenship; (6) worthy use of leisure; and (7) ethical character.

We must examine these objectives from the point of view noted above and determine which are without the province of the school, which are entirely within the province of the school, which are to be begun in school but of a general character, which are to be begun in school but of a formal character.

Vocational training not in elementary school scope.—The elementary school is no place and the six-year period of its duration is no time for specific vocational education. In the first place, it represents the minimum period set for basic work of a general character. In the second place, the children of this school are too young for introduction to vocations. The fact that practically all American communities now protect children under twelve from employment is sufficient to prove this. An attempt to introduce vocational work into the elementary school would approximate a method of nullifying this protection. Over-age children who might properly be given vocational work are, by the recommendation of the Commis-

sion in which the present writer concurs, properly to be sent to the secondary school. The Commission definitely agrees with this exclusion of vocational education from the elementary school when it says that "the pupil should be assisted ordinarily at about twelve or thirteen years of age (and in the junior high school) to begin a preliminary survey of the activities of adult life and of his own aptitudes in connection therewith, so that he may choose, at least tentatively, some field of human endeavor for special consideration."

The fundamental processes.—Of the six remaining objectives named by the Commission, are there any that belong completely within the province of the elementary school? "Much of the energy of the elementary school is properly devoted to teaching certain fundamental processes, such as reading, writing, arithmetical computations, and the elements of oral and written expression." These, it has heretofore been assumed, are peculiarly and exclusively the province of the elementary school. But "the facility that a child of twelve or fourteen may acquire in the use of these tools is not," in the opinion of the Commission, "sufficient for the needs of modern life. This is particularly true of the mother tongue." This means that the work will, in part, be continued in the junior high school. It remains true, nevertheless, that training in the fundamental processes, the tools which underlie all else in modern civilization is peculiarly and almost entirely the work of the elementary school.

The other objectives.—We note, then, that vocation in any technical sense is not properly an objective of the elementary school and that of the six remaining goals, none belongs to it with complete exclusiveness, although

the achievement of skill in the fundamental processes is one of its main preoccupations. In so far as these processes do not come entirely within the scope of the elementary school and, too, in other fields such as history, geography, and literature, in which a beginning must be made because they belong quite definitely to the stage of maturity under discussion, boundary lines will ultimately have to be established between the elementary and the junior high schools. For the present, we may regard the non-tool and non-fundamental fields of human thought to which the elementary school introduces the child as contributing to the other five objectives of education still to be discussed, obviously general in character, namely health, worthy home membership, citizenship, worthy use of leisure, and ethical character. Toward these objectives the school must make a partial advance. For their ultimate attainment, it must lay a basis.

The boundary line between the schools.—For the accomplishment of these specific and more general tasks the elementary school must formulate a curriculum. Where then, is the boundary line between the elementary and the junior high school? So far in this volume we have deliberately expressed the dividing line in terms of age of the pupil. We have said that the elementary school is six years in duration and therefore ends at age twelve. The Commission makes the division in the same terms, basing its opinion on principles of psychology which indicate the desirability of beginning differentiation in terms of future activities at about age twelve. Can a finer boundary line be established? Can it be stated in educational rather than in chronological and therefore presumably psychological terms? The attempt has been made:

"It is the purpose of the elementary school," says Professor Bonser,¹ "to provide experience in meeting the common needs of all, regardless of sex, vocation, or social status. Its content is made up of those activities in which every one must participate with a like degree of knowledge and skill and with like attitudes and appreciations, in order that there may be a unified, efficient, and stable social life." The elementary school deals with "that period in which the activities are to be the same for all children. . . . As we pass upward from the elementary school, the common element in school activities grows less and less as the work responds more and more to individual differences and needs, and as these in turn adapt themselves increasingly to the forms of vocational service in which individuals participate."

"To-day educational theory," says Professor Davis,² "based upon physiological, psychological, and sociological studies of children and adolescents, leads definitely to the conclusion that elementary education—that is, education designed for youths before they reach the period of puberty—should be nearly uniform in character for all, and should have the following aims: (1) to acquaint children with the tools of culture; (2) to give moderate skill in the use of these tools; (3) to impart a fund of knowledge that shall include the larger concepts of the world and its life, together with the means of making adjustments thereto; and (4) to establish desirable physical, mental, and social habits. . . . By the time the child has reached the period of adolescence, therefore, it should be expected that he will have been made acquainted in

¹ F. G. Bonser, *The Elementary School Curriculum*, pp. 61, 70. (Macmillan, 1920.)

² C. O. Davis, *High School Courses of Study*, p. 4. (World Book Co., 1915.)

a general way, with the world's most important interests; will have acquired a well organized stock of useful knowledge and a discipline that will enable him, so far as his stage of development permits, to employ his powers effectively; and will have made some advance toward the discovery of his own dominant aptitudes and interests. He should also know the more common forms of vocational activity and have had a glimpse of the roads that lead toward them."

Uniformity of procedure not possible.—All of these ideas have a dangerous sound. There is an assumption that differentiation between individuals commences at about age twelve, which should therefore mark the beginning of differentiated education; that preceding that age education should be universal and, by presumption, uniform in character, devoting itself to the basic subjects and to the things that we all need in common. But the theory as stated is neither true psychologically nor possible pedagogically. That we have clear ideas on this subject is most vital at the present stage of the development of formal public education in America.

Individual differences are present before birth, and the fact that we ignore these differences in our educational processes represents a greater loss to individuals and to society than is at present measurable. From the point of view of the educational objective of citizenship, for example, the difference between the potential statesman and the child whose utmost capacity will be taxed by the vocation of garbage-collecting, is marked and measurable before either of them enters the school. It is a political but not a psychological truth that "any boy may become president of the United States."

From the point of view of the educational objective of worthy use of leisure, the difference between the child potentially able to enjoy symphonic music to the full and perchance to participate creatively in its production, and the child whose utmost capacity for emotional enjoyment will be taxed by the inescapable rhythm and the melodic simplicity of the "popular" song, is equally well marked, although this is a variation which we cannot, unfortunately, for the moment measure.

And so it goes with every other of the goals. In preparation for and anticipation of worthy home membership, vocation, and ethical character, it is useless to fail to note the fact of wide variation in potentiality. Enormous qualitative differences exist, and the complete education of the child demands that they be considered and not overlooked. Differences must be provided for within the elementary school. But the provision must be for qualitative, not merely quantitative differentiation, for the differences in children are basic and permanent, not merely differences in rate of attaining similar ends.

From some points of view, then, the thinkers quoted are right. In so far as the children are of approximately the same maturity; in so far as we do not desire to trespass on the secondary-school curriculum; in so far as we do not wish to provide electives and work leading to differing careers; in so far as the work is to be distinctly preparatory for the next phase of education, the basis for another school to follow; in fine, from the community's point of view (quantitatively, in other words), the work is to be uniform and universal. But the uniform work is to be done differently in accordance with capacity.

Unmodified, this is a truism hardly worth stressing. It

is timeworn knowledge in educational circles that children vary. But the point here made is that the work required of the children must be deliberately varied, and made to suit varying capacity by qualitative differentiation, within the uniform and universal scope of the elementary-school field. The school is aiming at general objectives. In conformity, then, with the fact that preparation is being made for health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character, within this very scope and range, the school must make provision for variation in work approximating the variation in intensity and quality of ultimate potential achievement.

A number of persons may each in turn sing the same tune correctly or play violins all conforming to the requirements of the notation, or describe the very same event without violating any of the rules of rhetoric or grammar. This is quantitative uniformity. In this sense the children will all be citizens, producers, members of families, and participants in recreation. In this sense a curriculum may be universal. But what a range of variation is possible from the qualitative point of view! How the voices may vary in richness of tone and color; how differently the violins may sound in depth and roundness of tone, and the expression of emotions; how drab one narrative may seem in comparison with the vividness of the other! This is qualitative variation.

The difference in performance between Kreisler and the pupil who knows his "piece" is not in accuracy, velocity, or any other of the characteristics that make for correctness. From a quantitative point of view the

master and the amateur both fulfil the requirements *in toto*. The difference between the artist and the mere performer is a qualitative one: a depth of feeling, a roundness of tone, a richness of color, a finesse of phrasing—all aside from the quantitative demands. We ought not to blind ourselves to the discernible differences between the future statesman, artist, philosopher, and the child whose capacity will be taxed by the simplest routine. Failure to recognize these differences is waste. To this subject we shall return in the next chapter.

The boundary line is then, perhaps, best stated more or less arbitrarily in terms of chronological age. After all, age twelve conforms approximately to average child development from the point of view of maturity, not to mention the fact that the six-year school is best adapted to American conditions, resting on the historical evolution of the American school, and the character of the teaching personnel as now being trained in the United States in standard teacher-training institutions.

Formulating procedure.—Meanwhile we still have left for consideration this problem: how shall the elementary school formulate a curriculum or formal procedure that will make for the attainment of the rather general goals set down, toward which it must take the child a certain distance, conforming to his degree of maturity, and differing in accordance with varying capacity? In place of subjects of instruction to make up the courses of study for the various schools, we have set down rather vague general goals applicable to all. But the school must organize its tasks from day to day with a view to attaining these objectives. How shall this be done? Shall we select from and teach the old information and

skills with a clearer view than heretofore to their efficacy in achieving our goals, or is it possible to create something "new under the sun," to strike out *de novo* and, freed from all tradition, devise a means toward our ends, a procedure tending to accomplish our educational objectives? If we decide on the latter course and achieve success, shall we have changed the subject-matter, the material, and the skills to be mastered, or merely the procedure? Shall we have made our contribution to curriculum or to method?

It is to be taken for granted that we no longer place faith in the efficacy of mere mastery of subject-matter; furthermore, we realize that the subject-matter we use as material for instruction is not settled, fixed, and eternal, but in process of change. "Whatever society sets up as the ends for the conduct of its members . . . becomes the standard of reference by which to determine the content of the school work in so far as these ends cannot be just as well attained without the help of the school."³

Yet the fact remains that in modern civilized society the need for a "command of fundamental processes" also remains as one constant and stable factor of curriculum making, and furthermore, that it is an objective that will always remain the particular function of the elementary school.

But the specific character of the subject-matter to be used in the service of education must be derived as already indicated in the quotation from Professor Bonser. Methods of derivation at the present time show some variation. Professor Bobbitt,⁴ aiming "at those objec-

³ F. G. Bonser, *The Elementary School Curriculum*, p. 9.

⁴ F. Bobbitt, *The Curriculum*, pp. 43, 44. (Houghton Mifflin, 1918.)

tives that are not sufficiently attained as a result of the general undirected experience," holds that the task is to "discover the total range of habits, skills, abilities, forms of thought, valuations, ambitions, etc., needed for effective participation in the five great groups of activities enumerated by him; namely, occupational efficiency, citizenship, physical efficiency, leisure occupations, and social intercommunication.

Presumably an ever finer division of these fields, and the determination and listing of the skills needed for effective functioning in each, will lead us to the enumeration of a vast number of skills and abilities that will be duly tabulated. Having made the studies which he suggests by means of investigation of the successful performance of function in the world at large, will we be enabled in the long run to do away with a synthetic organization of these abilities under formal heads that will look very much like "fundamental processes" and subjects of instruction? Is it not, after all, possible that these processes and subjects of instruction already represent in logical succession the very skills that have been found necessary, undoubtedly weighted with some no longer needed and still lacking some that must be used in our contemporary world? It is doubtless true that the traditional curriculum includes "much that makes no desirable difference in conduct" and omits "much that is of very great significance for the conduct of life."⁵ But these faults are not inherent in any particular method of curriculum formulation. They are inherent in social progress and evolution. Given time enough, any formulation of

⁵F. G. Bonser, *The Elementary School Curriculum*, p. 20. (Macmillan, 1920.)

procedure, no matter how derived, whether classified as subjects or not, will be chargeable with the same faults. They are not fundamental; they are, therefore, remediable.

Will these means of deriving the curriculum in the long run do away with the old subjects properly adjusted to modern current life and made effective and functioning instead of being taught for their own sake, possibly synthesized in accordance with the project idea and eliminating arbitrary division lines now existing, as for example, between history and geography? Is Professor Bobbitt's method leading in the right direction? Can we talk in terms of goals and subsidiary skills to the exclusion of subjects, or shall we have goals in order to test the efficacy of any given subject or division of the subject now taught to see whether it serves its purpose: whether too much that is useful is excluded, whether enough that is useful is included?

Turning to Professor Bonser's mode of deriving the material of the curriculum, we find that he quite properly attacks the erroneous "assumption that the activity chiefly called upon" is "learning the material represented by the curriculum" and "developing a small number of skills in interpreting symbols and expressing meanings by their use" and in "memorizing the content of some text-books."⁶ He points out that in the past there has been an absence of relationship to activities in which the skills and knowledge learned at school are useful. The child has been taught subjects as abstractions rather than as functioning information and skills in actual contact with the situation in which these are useful. The remedy

⁶*Ibid.*, p. 1.

which he proposes is to do away with dissociations, to include life situations, not to use abstractions as such for educational purposes—to teach in terms of life activities.

But is not this a point of view on method to be followed (a point to which we shall return in our next chapter) rather than a new demand regarding the curriculum material itself? When he comes to a derivation of the actual material itself that is to be used as a means toward the educational goals by the new methods, he finds that we have a twofold source to draw upon; namely, the experience of present day life and the results of the experiences of the race in carrying on these activities. From these fields, he says, we are to select our material, bearing in mind the ultimate goals set down, and excluding such as may as well be attained out of school as in school. We are to bear in mind, too, the value of the individual as an acting, thinking, and feeling being, whose conduct is controlled by (1) knowledge or information, (2) habits or attitudes, and (3) appreciations. But all of these consist again merely of rules, laws, and principles, that are to guide us in selection, rules calling for elimination from and addition to the old standard subjects.

Is this thinking primarily a contribution to material or to method? Is there really such a thing as a "project curriculum" in any other sense than that of method? The fields of information, the character of the skills, do after all remain stable, though combined in a way to eliminate artificial and really non-existing boundaries, vivified by proper methods which show the old subjects as actually functioning in situations of use and interest to the child. Presented not for their own sake, but inci-

dentially as means of reaching large life purposes, these fields, nevertheless, remain: nature study, industrial arts, geography, arithmetic, history, English, physical education, music and fine arts.⁷

The furthest and most radical apparent deviation from traditional methods of curriculum derivation is that of Professor Merriam. In his book, "Child Life and the Curriculum" he actually enumerates new "subjects." "Four 'subjects,'" he says,⁸ "are used throughout the school"; namely, (1) observation; (2) play; (3) stories, including music, poetry, and pictures; and (4) handwork. These four subjects of instruction he has established after a doubtless merited and thorough criticism of the traditional curriculum, and the announcement of six principles as bases for the construction of his new one, namely: (1) "The curriculum should contribute primarily to enabling boys and girls to be efficient in what they are now doing, only secondarily to preparing them to be efficient later. (2) The curriculum should be selected directly from real life and should be expressed in terms of the activities and environments of people. (3) The curriculum should provide for great scope and flexibility to meet individual differences in interests and abilities. (4) The curriculum should be so organized that it will admit of easy rearrangement of the schedule for any day, of the work for any grade, and even of the transfer of work from grade to grade. (5) The curriculum should lead the pupil to appreciate both work and leisure and to develop a habit of engaging in both."⁹

⁷ See *ibid.*, Chapter VIII.

⁸ J. L. Merriam, *Child Life and the Curriculum*, p. 383. (World Book Co., 1920.)

⁹ See Table of Contents.

This apparently is the clearest swing, the most daring attack *de novo* on the curriculum problem. But what, after all, are Professor Meriam's goals? Is he really changing the traditional subject-matter and substituting in its place new subjects, or are his so-called subjects merely a new method, a device for doing what the schools have always done, and what after all must always be done? "However plausible the theory and practice of the proposed change in the elementary-school curriculum may seem," he says, referring to the work carried on in the University Elementary School and described in the volume under discussion, "the question really arises: How well will these pupils do their work in the traditional high school . . . *without studying arithmetic, grammar, etc., in the grades?*"¹⁰ Is it a fact, however, that Professor Meriam's pupils do not study arithmetic and grammar in the grades? The answer is quite clearly furnished by himself:¹¹ "In no place in this volume is it proposed that pupils should not learn in school to read, write, and cipher. It is contended, however, that a better content for study can be provided; and in the study of this content pupils will acquire the ability to read, write, and cipher as well as or better than in the traditional school."

It is not true then, as indicated in the quoted question, that children do not study these subjects in the elementary school at the University of Missouri. It is true in effect that they study these subjects in a different manner; incidentally, through novel methods by which instead of grouping subjects under the old arbitrary abstract division they are all combined and regrouped for

¹⁰ P. 449.

¹¹ P. 277.

purposes of instruction under four new heads, namely, observation, play, stories, and handwork. We have here a contribution to method. Instead of the formal presentation of subjects such as might be indicated by logic, we have the casual learning incidental to apparently different activities, simulating in that way the undirected learning by experience that life holds for most people. But play, stories, observation, and handwork are not curriculum, not content, not material. They are procedure—a teaching device.

Have we not, then, in the case of Dr. Meriam's thesis arrived at the same conclusion to which a study of Dr. Bonser's contribution had already led us, i.e., that an important part of current discussion which presumably deals with curriculum really involves method rather than content material? Some contribution toward the selection of material there is, as may be seen from Professor Meriam's five principles. The application to practice by these thinkers of Rousseau's philosophy and theory, that the material of education should deal with the immediate experiences and interests of children and the future will take care of itself, is important. This practice, tending as it does to adapt work to their degree of maturity, to do away with empty words and phrases, and to provide in their place activities that command interest and effort does represent real contribution to curriculum reconstruction.

But in the main the changes we have been discussing must be regarded as new methodology. It seems evident that, like other present thinkers on the elementary school, Professor Meriam is experimenting with the project. He makes the old material of the school incidental, but incidental learning of old material represents novelty of

method, not of curriculum.¹² The things mastered remain reading, writing, and arithmetic, and not observation, play, and stories. These latter are incidental to the former. The fundamental processes after all remain the goal at the University of Missouri Elementary School, as they do elsewhere.

Material and method no longer separable concepts. —The conclusion forced upon us by the foregoing analysis of the attempts at the formulation of curriculum principles on the part of three students of the subject, is that the curriculum as material and the curriculum as method can now hardly be separated. At least three elements enter into any consideration of the curriculum; namely, the material of instruction or course of study proper, the nature of the child considered from the point of view of general psychological development, as well as from the point of view of variation; and finally method of attaining objectives. All these three together constitute the true curriculum, so that the word itself can no longer be used as a term synonymous with course of study.

It is characteristic of modern educational discussion that certain age-old boundary lines fixing definite fields of thought are vanishing. It has always been customary to speak of course of study and method as two distinct fields. But when we talk of the business of the school in terms of educational goals, and set up specific objectives for attainment, we must realize that education, which in effect means the attainment of these goals, consists of method and materials indistinguishably. The formation of habits of citizenship and worthy use of leisure presuppose method as inevitably as subject-matter.

The pure objective determination of goals is mainly a

¹² See p. 277 of his book.

sociological function. A study of means of reaching these goals is largely determinable by psychological means. But the two are not so easily separable as heretofore, and so, in a preceding chapter which dealt with classification of children for the purpose of instruction, we inevitably discussed curriculum, and in this chapter on curriculum proper, we unavoidably invade to some extent the field of method, which forms the principal topic of another chapter.

Overlapping is unavoidable. The old artificial clarity of discussion no longer holds. Fundamentally the reasons for this overlapping are to be found in the complexity and intensity of life itself; and the approximation of educational discussion to this complexity and away from the too simple formalism of the past, is really a sign of vitality. Life, itself, is very complex and its activities are not all susceptible to discussion under clear-cut classification. A mother is quite likely to give a child a lesson in good manners when she is presumably engaged in purchasing his shoes, and the street urchin is very likely acquiring invaluable instruction in arithmetic when he is presumably engaged in the business of selling newspapers.

The course of study as a means to an end.—This new methodology is vital and valid. We shall return to it in the chapter on that subject. Meanwhile we have reached the point where, having noted that the material of instruction, the skills to be acquired, must remain fundamentally the same so long as society retains its present characteristics, this material should be definitely formulated. Always bearing in mind that the material is subject to constant change, with the social progress, the development of new ways of living, and even the develop-

ment of new ideas; conceding that the subjects need not be taught individually but may better be handled in combination and in disregard of logical and learned boundary lines; conceding that we have need of constant revision to eliminate the obsolete and merely traditional and to include the newest and currently useful knowledge and skills; conceding all of this, the fact remains that we need for to-day a formulation of this material from the several points of view of the school.

Sociologically, it must be useful and timely in accordance with the principles we have been discussing. Psychologically, it must be in terms of the maturity status of the children under discussion. From the concrete view of instruction, it must be in goals attainable by the average child within the six-year limit and progressively organized in terms not necessarily logical, but rather psychological, following the known laws of development and learning. What then is this material which the school must use? Because the work of formulating courses in the various subjects from these points of view has been done by a number of devoted students who have given years of labor and of experience to the task, a discussion of this specific material will not be undertaken here. Their work is referred to in the bibliography at the end of this chapter. Mere repetition would be futile.

Summary

Adopting for purposes of our discussion the objectives outlined by the Commission on the Reorganization of Secondary Education, and following the principles of procedure outlined in the last chapter, we find, (1) that the

elementary school should not concern itself with preparation for vocation; (2) that training in the fundamental subjects belongs almost entirely within the elementary school; and (3) that of the five remaining objectives, the elementary school (*a*) takes a share in establishing certain habits, attitudes, and ideals suitable to the child's degree of development, and (*b*) makes certain formal preparation of several non-fundamental subjects such as history, geography, music, drawing, and literature, on which the junior high school may count and build in aiming toward the general goals.

The character of this latter work has not yet been defined either by the elementary school in terms of what is possible of achievement, or by the junior high school in terms of what is required as basic for its work. Indeed, the boundary line between the schools in terms other than attained age is difficult to establish. The idea of differentiation, indicating that elementary-school training is uniform and universal and that educational differentiation conforming to variation in the pupil group begins in the junior high school, is faulty. Children differ from birth. At the time they enter school these differences are marked and, in part, measurable. Educational processes should conform to these facts.

When we examine the various attempts at a reformulation of the procedure of the elementary-school curriculum for the purpose of achieving the goals set, we find that, apart from a natural elimination of obsolete, and addition of current information and skills, recent thinking on the problem tends to be a contribution to method rather than to material of instruction. Society and social practice remaining stable, the material of instruction re-

mains much the same. The process required from this point of view is an examination of the material of instruction and a revision of this material with a view to the goals in the attainment of which it is to assist. From this point of view, the material should be currently useful and applicable, psychologically apt for the particular age, and educationally attainable.

An examination of the material of instruction is not undertaken in this chapter, because such a discussion would be a gratuitous repetition of the results of excellent work by others now available and indicated in the bibliography.

Problems

One of the most important problems arising out of the discussion of this chapter involves the specific formulation of an elementary-school curriculum that will map the work of that school toward the attainment of the five general goals, exclusive of vocation and mastery of the fundamental or tool subjects. This problem has two phases:

1. In the field involving largely information and skills, such as music, drawing, history, geography, and composition, what should be the expected product of the six-year elementary school, bearing in mind (a) the legitimate demands of the junior high school, and (b) the attainable results within the several limitations of the elementary school? An exact formulation and agreement between the schools will ultimately eliminate duplication and overlapping and replace these with a continuous educational process. At present there is very little theory.

2. In the field involving largely habits, ideals, and attitudes such as make for citizenship, worthy use of leisure, and worthy home membership, what should be the expected and if possible measurable product of the six-year elementary school, bearing in mind the attainable results for this age-period?

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CHAPTER XIV

PSYCHOLOGICAL ASPECTS OF CURRICULUM FORMULATION

The nature of the child a conditioning factor.—We have discussed, in the two preceding chapters, the general objectives of education, and the specific function of the elementary school as one educational phase of the progress toward the achievement of these objectives. But these objectives cannot be formulated in the air. They are not similar to a set of goals which a general sets himself before a battle, with the undoubting assumption that his commands will be obeyed, that all he has to do to see the forces move is to issue his commands. The achievement of educational goals is distinctly conditioned by psychological factors, such as maturity, intelligence, emotion, and, most troublesome of all, variation in every distinguishable characteristic. The children may all make the same start, but they will soon scatter at points along the line toward the designated goal. Even where they apparently cover the same ground, variation is definitely noticeable. They may sing the same song, but they will not sing it in the same way.

Again, the very naming of the goals must be conditioned by the same factors. Some of the goals, such as vocation, are rather definitely social, and the type of group organization in which the individual participates is such that motivation is automatically provided. The

goal of some degree of productive participation will perforce be more or less well achieved. On the other hand, the worthy use of leisure is so distinctively an individual matter that, failing motivation provided by the school, it may never be achieved. Then again, some of the goals, such as a command of the fundamental processes, call primarily on the exercise of intellectual capacities and instruction ends in rather definitely measurable results. The achievement or failure to achieve these results is ascertainable. But other of the goals, such as good citizenship, depend on emotional reactions and the formulation of habitual responses to situations, most of which are to function after the child has left the school. Measurement and prognosis of achievement in this part of the curriculum is, for the present, almost an impossibility.

And so we see that the psychological factors which condition the formulation and functioning of the curriculum, must be considered. But it is not intended in this chapter to deal with the entire problem of the psychological phases of curriculum formulation. That field must be left to thinkers in educational psychology. We are to deal here with two aspects, namely, emotional development and the factor of variation as these affect the curriculum, not because they are psychological in nature, but because they represent unsolved problems in elementary education with which the teacher must deal, and which he can no longer neglect. The psychological problems proper, as we shall see, are far from solved. These must be left to the psychologist. But pedagogy has not yet adjusted itself in the two particular topics to be discussed, to the findings so far made and formulated by the students of educational psychology. These must engage our attention.

I. The Training of the Emotions as a Problem of the School

The school has failed to function in emotional development.—“The curriculum should provide for all phases of behavior,” says Professor Bonser, “acting, thinking, and feeling.” In facile agreement with this obvious axiom it is commonly conceded that the curriculum must make provision for rounded and full development of every aspect of living in modern society. Nevertheless, it is fair to say that the school has hitherto concerned itself not at all with the emotional life of the child or the future adult. Assuming that the manual and other motor skills as well as the intellectual capacities necessary for functioning in modern society have been developed in school with reasonable satisfactoriness, it is probably not unfair to say that so far as emotional development is concerned, if one means by this an ability to appreciate and participate in the cultural heritage of the race, the schools have proved a complete failure.

The American population, graduates of the elementary school, and to some considerable extent of the high school, can read, write, and cipher for all practical purposes. But in their leisure hours, music, the literary theater, and others of the arts are to them still largely segregated fields relegated to the world of “high-brows.” Even those who for any purpose concede the necessity and desirability of cultivating these fields, work at, rather than enjoy the process. It is true that educators are agreed regarding the need of developing the appreciations and providing for the most fruitful use of the constantly increasing margin of leisure that is coming into our society; it is equally true that the schools have in detail made no provision

for the development of these appreciations and this emotional life.

This is a social question not lightly to be passed over. The American people probably compare favorably with any other racial or national grouping in intelligence. They compare as favorably from the point of view of wealth, which means, or ought to mean, in effect, the power to command leisure and to make life beautiful. All the usual inspirations for song and story, for music and the graphic arts, are to be found among us. But these arts lead an esoteric, petted, orphan existence. They are not indigenous.

This merely means, in effect, vast resources for beautiful living unutilized. It means on the part of the masses failure to participate and, on the part of the potential few, failure to create. It means, within all the safeguards of modern material civilization, spiritual savagery. It means crass and comparatively low standards where we might have noble ones.

There is a superstition that such things take care of themselves, that "if it is in you it will come out." But this is not true. Rather is it a fact as Hayward points out,¹ that "the grandeurs and the beauties of the Alps and the Highlands pass unnoticed for generations; then some one brings the discerning eye and removes the scales from eyes that are not discerning; what was formerly the spiritual wealth of one becomes the currency of all."

Almost every one has personally experienced the simple truth that it is possible to be blind to surrounding beauty until it is pointed out to him. And the process of point-

¹ F. H. Hayward, *The Lesson in Appreciation*, p. 189. (Macmillan, 1915.)

ing out, in most arts, means specific training for enjoyment. The power to enjoy art is not a natural one, such as the operation of the instincts. The tiresome expressions, "I like music but I don't know much about it," and "I don't know much about Art, but I know what I like," are mostly sham. With the fewest exceptions, real enjoyment of the arts must be prepared for by training, for the simple reason that their practice is not natural. The arts represent an artificial refinement, perfected by the ages, and their appreciation requires abilities less only in degree than the ability required for their creation. The very beginnings of art, such as the crude dance of the savage expressing an innate sense of rhythm, may be natural. But man is not born to-day with any natural ability either to understand or to enjoy the form and content of a symphony or a sonnet. The very history of the arts, outlining as it does their slow development through the ages from the crudest beginnings to highly developed forms, is enough to indicate the truth of this contention. What it takes one man a lifetime to prepare for and to execute, another cannot enjoy offhand.

These abilities to enjoy and to create we do not as a nation possess in any measure commensurate with our status in other fields, and with our possibilities. The achievement of our full share of these noblest of human potentialities, it is the business of the schools to aid in accomplishing. As has been pointed out in preceding chapters, the modern home is increasingly abdicating to the school its former function as the agency for nurture. Furthermore, the public schools of a democracy are peculiarly charged with developing the social good. There is nothing miraculous about the attainments of the an-

cient Greeks in the realm of beautiful living. It is possible for a modern democratic people who command easy means of material existence and hence ample leisure, and who live amidst natural beauties unsurpassed, to make their material and spiritual environment as rich in beauty as was ever that of Athens. This, then, is a problem of the elementary school.

Reasons for this failure.—There are several important reasons for our lack so far; one of these is the fact that the school, which always has relied on the intellectual process, proceeds to intellectualize the new subjects and activities which are particularly calculated to enrich emotional life. To be concrete, music, drawing, and literature are unlike arithmetic, handwriting, and grammar. They are primarily calculated to give pleasure, to affect the emotions rather than the intellect. It is quite true that in each instance there is a basic technic which must be mastered by the mind, and in which some skills must be developed, but these are not the true ends. They are basic means toward the real purpose, which is enjoyment.

But the school, which has a tradition of appealing to the thinking processes, has treated these new additions to the curriculum in its old manner. It has taken on music and literature but it has treated them exactly as it has treated arithmetic, grammar, and penmanship. It has intellectualized them. Data regarding the biography of authors; careful examination of a novel or drama in order to master its plot; even careful notation of the fact that the composition in hand is considered good literature —these are all non-emotional processes, not at all calculated to develop that reaction which will make the pupil a participant in the joy of literature. "In the

average school, the music or poetry lesson is not, in point of fact, widely different from the arithmetic lesson. . . . We have never realized the significance and the function of appreciation; we have confused it with technic, and through this confusion we have destroyed appreciation."²

The school is easily enough convicted; questionnaires as to the reading matter of high school and college students, apparently always bring the same disclosures; namely, that the work in literature does not function, that students for real pleasure go to sources not approved by the school. The point need hardly be stressed. The profitable and well supported movie and theater do not produce the type of amusement most calculated to carry on a tradition of high art. Good drama, good music, good graphic art are almost everywhere in America subsidized as a luxury by the very wealthy. They are almost everywhere in America exotic. They almost nowhere grow out of and respond to an inner need of the population trained in liberally supported public schools. The school intellectualizes all of the arts; it teaches the skills, the mechanisms, but does not develop emotional reaction.

Another explanation on historical grounds is possible for this failure of the school to provide for the emotional development of children and to create a responsiveness to the arts. Education for the masses is a recent institution and the elementary school, intended primarily for the masses, has naturally been always a rudimentary school. Its courses have been utilitarian and brief, intended primarily to aid the state. In other words, they have been intellectual rather than emotional. The arts have not belonged to the masses, but have always led the

² *Ibid.*, pp. 186-87.

existence of pet children subsidized as a luxury by wealthy patrons; rarely have they represented a robust response to the needs of the people. The democratization of the arts, as part of the process of general social democratization and general mass participation in a fuller social and community heritage, can hardly be said to have begun.

On the other hand, the patrician has always received and still receives his training in the appreciation of the arts at home, from the very environment and by the mere operation of nurture. It has not been customary for the school to concern itself with the emotional development of the child. In the secondary school which historically catered to the select, such training was unnecessary because art appreciation was bred in the blood and imbibed from the environment. The people's school, starting humbly as a rudimentary school limited to a few utilitarian ends, has never developed a technic for formally taking over this cultural inheritance for the mass. When it did take on music, literature, drawing, and other of the expressions of the purely emotional life, it intellectualized them, and has been proceeding as if the true theory were based on a mere development of skills, as, for example: reading musical notation.³

New procedure essential.—But the gulf between knowing and doing will never be bridged, and the use of information as a means of influencing conduct will never be established, until the school has learned how to affect the child's emotions. We must become aware of the futility of mere knowledge, and the need of developing a technic for establishing function. "Whatever makes a

³ For another and different explanation see page 182 of F. H. Hayward, *The Lesson in Appreciation*.

difference in conduct which helps to meet any real need has educational value in just the degree that it makes such a difference. . . . Aside from the difference in conduct made by experiences of any kind there is no basis for judging their worth."⁴

There has been considerable agitation in recent years in regard to the failure of the so-called old civics instruction to function. It has been repeatedly pointed out that memorizing the Federal Constitution is no way to make good citizens; but neither is the new Civics, substituting as it does other information in place of a knowledge of the machinery of the Federal Government, going to function. As mere knowledge, information concerning the city street-cleaning department will probably be as futile as knowledge concerning the manner in which a bill is passed through Congress. Good citizenship involves volition: a desire to be a good citizen. This wish is emotion, not information. Civics, along with all other subjects which primarily affect emotions, will have to be reorganized in the curriculum.

The school has not absolutely ignored the existence of the emotional life. In its attempt to motivate work by the use of such devices as the project and the problem, and in its attempt to stimulate by its appeal to such instincts as rivalry and loyalty, it has been dealing with emotions. In this procedure it has, however, been using the emotions of the child for its own ends of intellectual achievement. All the procedure has consisted of learning and teaching devices. It has not been a process of emotional development as an end in itself.

⁴F. G. Bonser, *The Elementary School Curriculum*, p. 10. (Macmillan, 1920.)

Curriculum objectives divisible into two classes.—It has been stated in the foregoing pages that the present method of deriving the curriculum is to outline a series of objectives for the work of the school. From the point of view of this discussion we note that it will be necessary to divide these formulated objectives into at least two groups, by asking concerning them whether these goals are primarily intellectual or primarily emotional. School procedure will have to be organized in terms of this knowledge. It is futile to think that objectives primarily emotional can be attained by the same tried methods as are now used to attain objectives primarily intellectual. The school is beginning to understand all this. In place of physiology, which formerly stressed such achievements as memorizing the names of the teeth, teachers are now conducting tooth-brush drills—a patently more effective process. But the entire school will have to be formally reorganized on this basis. Means will have to be devised for conscious effort to affect the emotional life of the child; to establish habits and attitudes, which will in the end succeed in really democratizing the arts, in really transmitting to the vast mass the precious sources of spiritual happiness to which the very few now have access. As we have too frequently seen in this discussion, educational goals, in terms of subject-matter enumeration as an ultimate end, will no longer serve. The curriculum will consist of a series of goals together with appropriate material and methods for attaining these goals. The goals will be known either as primarily intellectual or as primarily emotional, and in accordance with this knowledge proper means will be devised.

Nonexistence of established pedagogical practice.—But these means in turn will depend on psychological

investigation for the purpose of determining the character of the emotional life. At the present time we are almost entirely ignorant of any pedagogical means for inducing emotions. Although it is obvious enough, from the examples in civics and physiology which have been cited, that we must endeavor to induce proper emotional reactions, this pedagogical field is almost entirely uncultivated. "The literature on this subject is scanty, almost to nonexistence. . . . Books intended to help the teacher of the young child or even of the adolescent have hardly yet been produced by the educationists of any land."⁵ "The very good reason why we do not specifically provide for the education of human feelings and emotions in our general scheme of education is that we have no sufficient understanding of how to accomplish this desirable training."⁶

We have probably not yet listed emotions. We do not know the proper order or sequence of their appearance, but this problem is primarily one for the psychologist. How new this educational process is, compared to its future potentialities, may be noted from the fact that the emotional life is probably not the only phase which the school now overlooks in its exclusive devotion to intellectual development. The significance of maturity as a factor in education has received but slight attention. And yet maturity may condition a response as surely as emotional development. The ability fully to think with the author and understand and enjoy in the full sense such novels as those of George Eliot and William Makepeace Thackeray must be based as surely on that unde-

⁵ F. H. Hayward, *The Lesson in Appreciation*. (Macmillan, 1915.)

⁶ Johnston-Newlon-Pickell, *Junior-Senior High School Administration*, p. 25. (Scribners, 1922.)

fined group of traits that go under the name of maturity, as other responses depend on emotional reactions such as sympathy, loyalty, and affection. Our knowledge and our practice in this field, our ideas as to whether a child is "old enough" to read a particular thing, are very vague indeed, and we come to a point at which we see that if we are to abandon subject-matter mastery as a goal, and the mere implantation of a teacher's prejudice as an ideal; if we are really to have education as a rounded development of all the faculties, it will be necessary to make a more thorough study than has ever yet been made of the child subject to training, and to adjust school work to the realities discovered by experimental psychology.

II. The Factor of Variability

Basic to all of this discussion is the fact that people vary greatly in emotional capacity. We have learned to measure intelligence, and have in consequence discovered varying degrees of capacity. When we have learned to isolate and measure emotional capacity, to list the development of the emotions in some order of sequence and to measure their intensity and susceptibility of development, we shall discover the differences at various ages for the race as a whole, differences between individuals of the same sex and possibly between the sexes, and finally, a qualitative difference that will diagnose creative capacity.

Educational procedure will have to take these differences into consideration. Crude adjustments are easily predictable. There probably exists a definitely measurable difference between a future Beethoven or Shakespeare and the person whose furthest development will mean ability to enjoy the creations of these masters to

the full. A true social economy will indicate the early discovery and development of the creative mind. As we have not yet settled on any practice or established any accepted theory for such qualitative educational differentiation in the field in which discrimination is now possible, namely, general intelligence, the subject of emotional education may as well be discussed in common with the problem of qualitative differentiation on the basis of such measurements as are now available, a problem to which we must now address ourselves.

The problem of differentiated education outlined.— The time for simultaneous instruction on a *pari-passu* basis is well passed. That regrouping on the basis of variation in endowment must be effected was pointed out in a preceding chapter. The question before us here is what shall be done with these regrouped children. Shall we give them the same type of instruction, or shall we vary the character of the work done? If the work is to be varied, on what principles is the differentiation to be effected? Certain facts are fundamental and must be restated. It is neither possible nor is it desirable to make complete allowance for difference in endowment by sending the more highly endowed group forward more rapidly. American conditions are such that (1) the child must be kept in elementary school for approximately six years, and (2) the elementary school must not make inroads on the secondary-school curriculum. It is well known if not formally and theoretically stated, that maturity is as essential as intellectual ability, if one is to avail himself to the full of the opportunities of higher education and of association with one's fellows in the higher institutions.

It will probably be agreed that no child should be sent

to the secondary school before age twelve, but this principle would be defeated if the elementary school undertook to do a year or more of high-school work, and thus sent the child on to the college earlier by that amount of time. Again, the elementary school, relying as it does for its teaching personnel on the present teacher-training agencies, is not prepared to carry on secondary instruction. We must then retain a similar time period for practically all children, regardless of our improvement in methods of instruction and of the existence of variation in ability. Presumably it is a fixed habit in America to send children to school at age six and we are to keep them until age twelve, during which period we must not trespass and indeed cannot trespass on the high-school curriculum.

The objective goals set, too, in the most general way, remain the same. The most gifted child as well as the dullest is being trained for health, leisure, civic and social participation; and in terms of specific future career, differentiation of goal ought not to begin before age twelve. The most brilliant children are not necessarily so mature prior to age twelve as to be able to make their decisions.

Experiment essential.—What then are we to do with the more highly endowed group? What use are we to make of the reclassification and differentiation of the two groups? The old assumptions have gone. We cannot content ourselves any longer with special promotions or so-called enrichment of the curriculum. *We are frankly in a field where experimenting is very greatly needed.* What we are to do with the child ought to depend on a most careful observation and study of this particular type who can now be so easily isolated, segregated, and grouped for that purpose.

The distinction which is now being made by the mental test, which enables us to realize existing differences between children, is quantitative. The numerical difference in intelligence quotient between I.Q. 90 and I.Q. 120 is a quantitative distinction. It indicates that these children differ in potential ability to do work. It is important to note that the numerical index of intelligence quotient gives no qualitative clue to the child. This point can be made clear when we realize that a group of children selected for I.Q. all of whom are, let us say, of 115 I.Q. are not necessarily alike. When we get a group of children within a very narrow range of I.Q. we get a homogeneous group from one point of view, a quantitative one, but qualitatively these children differ from one another in ways that we are as yet unable to distinguish. In emotional capacity, in the various factors that go to make up character, as for example, perseverance, temperament, etc., these children differ in a way that we are unable to measure and describe.

One can perhaps visualize the difference between the qualitative and quantitative distinctions by picturing a defined goal to be attained and ways in which the attainments might differ. If one thinks of a number of children starting out physically to reach a certain point, some of whom get there and some of whom drop out at different points of the stretch toward the goal, we have a visual image of quantitative differentiation. The child of 70 I.Q. starting out with a child of 125 I.Q. toward the distant goal of college graduation, probably stops before the point marked eighth grade. The better endowed child stops at some point between the eighth grade and second year, high school, and so the road is strewn with contestants until we reach the point of college graduation.

where we find the child of 125 I.Q. who not only started but finished the race. This is quantitative differentiation.

On the other hand, we may picture a number of persons as reaching a named goal, but performing quite differently. Iago's rôle may be memorized and acted by a high-school sophomore in a class play, or it may be memorized and presented by Edwin Booth. In this case there is no quantitative differentiation. In each instance, quantitatively, the goal has been attained. The differentiation is purely qualitative, and so long as we avail ourselves of our ability to differentiate between children for the purpose of making mere quantitative distinction, we are wasting almost entirely the school opportunity presented by means of classification and grouping on scientific lines. It is inevitably true that well endowed children differ from others qualitatively as well as quantitatively, but until we have probed for, discovered, and utilized the qualitative differentiation we are not making full use of our opportunity and developing these children to their highest possible capacity.

It must be that a segregated group of highly endowed children is as capable of vastly richer emotional life as it is known to be of vastly greater intellectual life and development. It must be that this group contains the potential contributions to our civilization—the great creative minds of the future. So long as we fail to avail ourselves of the opportunities to discover and develop these great human resources we are committing most unpardonable waste. So great has been the waste of human material hitherto by virtue of the failure to distinguish and develop outstanding ability, that it is probably im-

possible to forecast what vast changes in human life would be made by full development of this spiritual material. Highly endowed children do not do the same sort of thing as children of average intelligence more quickly and sooner, they do it differently.

Basic social reasons for special need in America.—For a number of important reasons, this experiment and effort to conserve creative ability is more essential to-day than ever before in human history and more essential in America than almost anywhere else in the world.

An economic society which increasingly standardizes not only processes of manufacture, but the very routine of daily life; a society which, by virtue of organization and concentration, abolishes the individuality and variation of geographic divisions and makes the man on the Pacific slope attend the same movie as the one on the Atlantic seaboard, wearing the same national brand of clothes, smoking the same cigar, basing his opinion on the same syndicated news, purchasing his cheaper articles in the same red front five-and-ten-cent store, tends to create a uniformity in which the sort of accidental variation on the spiritual level that gives genius a chance, becomes decreasingly possible. "Quantity production of qualitatively standardized" goods has some virtues, but it tends increasingly to make odd that deviation from type which holds promise. Life is becoming depressingly automatized. "The placement division of the Chicago high schools is at an increasing loss to fill the calls for dictaphonists as against stenographers, for comptometrists, rather than bookkeepers, for machine operators of all kinds, for mimeographers and stencilers, filers and addressographers. Half a dozen office technologists in

commerce and administration can nowadays direct the office staff of an entire railroad."⁷

These conditions are attributable to the age we live in, and therefore effective everywhere. But we in America face a special danger inherent in the very virtues of our social philosophy. We have done away with the idea of caste in education. We maintain one type of school only, a school for all. But the European caste and class system, cruel though it may be and unjustifiable from a social and ethical point of view, is nevertheless selective. Doubtless it excludes many children potentially capable of development on the higher levels, possibly it lets through a very small percentage who on rigorous bases of selection untinged by favoritism should be excluded. But, in a rough way, it trains a select group for leadership. It is more or less a conscious social device for perpetuating the best in social institutions and for continuing their development. The very desire and ability to enroll a child in the German gymnasium, French lycée or English public school, is an indication of probable capacity in the hereditary line, a capacity which placed the family in a favorable social position.

Our unitary school system, on the other hand, holds within itself a grave danger of mediocrity. The rather sudden undertaking which we have witnessed in America, to provide schooling for vast masses of children, requiring rapid adjustment of equipment, curriculum, pedagogical theory and, most unfortunate of all, low standards of teaching personnel, has given us a system which, while highly creditable for the education of the average child,

⁷ B. Stolberg, "Vocational Guidance." *The Nation*, Vol. CXIV, p. 717.

is a very poor place for the education of the highly endowed child. It is stating the simple truth to say that the educator who is asked for advice by the parent of a child of, let us say, I.Q. 180, is bound in honor to reply that there are no facilities public or private for the education of such children.

Yet the social welfare from every point of view, economic as well as spiritual, demands that their development be especially provided for. Some of the institutions of aristocratic society which are least to our taste—such, for example, as the habit of patronizing the arts practised by certain wealthy and noble families by means of maintaining and subsidizing great artists—formerly functioned in Europe to achieve what we as a society have left undone. We are not interested in seeing the establishment of private patrons. But a democracy cannot afford to let the potential contributors to its social and spiritual resources go undiscovered and undeveloped. Our society must devise ways and means of conserving its resources in human potentialities. Complacent mediocrity is a dangerous atmosphere for the future artists. Not only are we not in the habit as a society of rewarding creative ability in the field of art; we are even in danger of showing some contempt for non-highly remunerative occupations.

The one-type school has been outgrown.—This, then, is the next great problem of the American public school as a conscious agency of the democracy. We must deliberately, consciously select children for education in a special system of schools. This is not inconsistent with the principles of a democratic society. Where every child is given the same opportunity and the selecting method

operates impersonally, the division is made not by the school, but by the operation of nature—a division not susceptible of influence by social philosophy.⁸

We need, then, frankly, a system of schools in the place of the single school. We need, not clumsy adjustments to the present system, not classes, not special promotions, not "enriched curricula," but several types of schools differentiating among children from the very day of their entrance on the basis of an ever improving set of measurements and criteria.

Tentative principles for the special education of the highly endowed.—It has already been stated that exact procedure in the school for the highly endowed should be left to determination by experiment. It is too late a day in the history of scientific education in America to theorize before we have worked with the human material and really determined its capacity. Nevertheless, such an experiment would begin with some hypothesis. The very reason for establishing the school holds within itself some implications which may be noted. In that sense we may say that it is possible to make a beginning in a basic theory for the education of highly endowed children.

Although the special school for the highly endowed must adhere to certain principles laid down for elementary schools in general, it is obvious enough that certain qualitative intensifications can be carried on. In other words, a school for specially endowed children would take a different attitude toward, and do a great deal more with

⁸ For a vigorous statement in direct opposition to this proposal see W. C. Bagley, "Educational Determinism." *Educational Administration and Supervision*, Vol. VIII, p. 257 and, by the same author, a further statement in *Journal of Educational Research*, Vol. VI, p. 371.

such subjects as music, drawing, dramatics, dancing, and nature study than is done in the typical school. No one knows to-day what may be done with children of this type if proper equipment, personnel, and freedom to experiment be permitted. Probably one specially stressed fundamental difference would be emotional development. Again, with the time available because of the rapidity with which these children learn standard subjects, a speaking knowledge of one or two languages might be given them without in any way interfering with the general high-school work. A school of this type ought to assist in determining how early children can and ought to begin school work, how rapidly they can be carried through the old curriculum, and how potential genius should be educated.

In the first place, we assume that the highly endowed group is the group that contains, largely, the potential leadership of which we expect to be most proud. Presumably this means leadership of every kind, in the arts as well as in citizenship and vocation, although the relation of emotional giftedness to general intelligence is by no means established. From this group, then, we shall expect originality. For this group, then, outlets for originality and creativeness should be especially provided. *This is the one group in whose training the theory of education as transmission should play the smallest rôle.* Environment and instruction should be deliberately organized to discover and foster deviation from accepted ways, originality of attack, the creative impulse. The inherent conserving tendency, over-emphasizing the *status quo*, has its particular dangers in the education of these children. For every Christopher Columbus and

Robert Fulton there must be equally imaginative but less robust spirits who do not persist against odds. For these opportunity should be provided in the new school.^{8a}

Again, there must be a willingness to release our grasp on accepted school methods. Undoubtedly a school for the most highly endowed will require a particularly picked personnel. Every intelligent observer of our schools has at some time or other had the chagrin of visiting a class in which the only advantage of the teacher over some of her pupils was that of maturity and the power of the law. *There is a percentage of children in every class qualitatively superior to the teacher.* If they are quite young, the teacher may have a higher mental age, but the children have the higher I.Q. All children require good and intelligent teachers. The standards must continue to rise. But the most highly endowed children particularly need and must have the very finest teachers available.

Furthermore, we cannot establish a new school and use the old material and equipment. Text-books, for example, will have to be written anew for this group. It is patent, and all observant teachers know, that the primer, adjusted to the average capacity, interest, and maturity of six-year-old children, frequently seems ludicrous to the brightest portion of the class. Differentiation does not mean the same thing at an earlier age or at a more rapid rate; it means qualitatively different procedure. The new school, on the basis of experiment, will

^{8a} The two following books interestingly describe pedagogical beginnings toward this end but, oddly enough, on the apparent assumption that the new procedure is applicable to the entire school population: H. L. Miller, *Directing Study* (Scribner's, 1922); *A School In Action—(A Symposium)* (Dutton, 1922).

establish new texts, new materials, new groupings from the point of view of homogeneity, new methods, new standards of achievement, a new curriculum. It will, for the first time in history, begin the education of youth in terms of real potentiality. The prime requisite of the experiment is freedom from traditional practice and from preconception.

The great problem of the school, then, the problem that can be studied carefully only by experimenting, and that cannot be covered by pure theorizing, is to discover the qualitative attributes of the group that lead the world and create its wealth, material as well as spiritual, and to save all possible members of this group and develop all fine qualities of the members discovered.

In view of the comparative novelty and fundamentally revolutionary character of this suggestion for frankly differentiated education, it is interesting to cite the opinion of a large-city school principal who has been studying the problem of the gifted child at close range:⁹ "I think the ideal scheme," he says, "would be to have a sufficient number of supernormal pupils to constitute a class by themselves and then to give them a broader and richer course and also take them over it more rapidly. This can be done in a very large school or in groups of schools aggregating 3000 or 4000 pupils. Three thousand pupils ought to furnish sufficient exceptionally bright children to make a good-sized class in each grade. These ought to be segregated, beginning about the third grade and kept in a separate class throughout the grades and

⁹ H. W. Zirkle, "Taking Care of the Gifted Child." A paper in the 1st Yearbook of the Department of Elementary School Principals, National Education Association.

the high school. We are doing this for the subnormal type; why not for the superior?"

Present status of education of gifted children.—

"There is little evidence of any attempt to determine the special aptitudes and gifts of strong students and to provide them with special training in these fields,"¹⁰ says one student, reporting an investigation which included every city in the United States having a population of 8000 or more. Professor Freeman¹¹ reporting a similar investigation during the school year of 1919-20 which covered cities of a population in excess of 25,000 does not refer to any experiment as complete in character as the one here suggested. He quite correctly concludes that "the organization of the work, particularly the adaptation of the curriculum to the bright pupils, is in a stage of great uncertainty." It may be said in a general way that there is not going on at the present time any important general experiment along the lines outlined in this chapter.¹²

The most important thing now being done to meet the situation under discussion, consists of adjustments by skipping grades—a quantitative attitude. Even if this skipping were not awkward and unusable beyond certain limits because of age, it is fundamentally insignificant because it confines itself to speed along the old thin line of the curriculum, although the year or two

¹⁰ E. L. Woods, "Provisions for the Gifted Child." *Educational Administration and Supervision*, Vol. III, p. 139.

¹¹ F. N. Freeman, "Provisions in the Elementary School for Superior Children." *Elementary School Journal*, Vol. XXI, p. 117.

¹² For the latest summary of efforts to organize school work in terms of present psychological information the student should see L. M. Terman, *Intelligence Tests and School Reorganization*. (World Book Co., 1922.)

saved is of definite value and preferable to no adjustment whatever. The discussion of enriching the curriculum when analyzed resolves itself into doing more work, broader work in the same subjects that the regular class takes up. Occasionally it means the earlier beginning of secondary subjects. None of this is, however, fundamental. The great problem involved is to learn how to develop these children for society to their utmost capacity, and we cannot do this by stretching the present school. We must strike out experimentally to discover what we should do and how and when we should do it.^{12a}

An experiment of this type ought incidentally to yield information as to the basis for the inevitable reorganization of our system. In terms of mental age it should yield information useful for all types of children as to time for beginning and best method to be used in the standard subjects of the curriculum. It ought to point the way to a necessary reorganization of high school and college to receive the children of reorganized schools. In itself it ought to indicate to the educational world what the gifted child is capable of, what promise there is, and how important it is to save every single child of high endowment. If this group of children contains, as it probably does, the great bulk of the potentially creative minds, then this experiment must devote itself to learning means of discovering and developing special aptitudes. At the present time we have no means of scientific qualitative differentiation, within the group presumably homogeneous on the basis of I.Q.

^{12a} "The working out of a differentiated course of study, as regards both content and method," says Professor Terman (*Intelligence Tests and School Reorganization*, World Book Co., 1922), "is one of the most urgent needs in education today."

A corollary in social terms.—Finally, the retention of the gifted child for the maximum period necessary for his development will have to be considered as a social problem. Logical uniformity of system and organization are almost always at variance with the real facts of life. Whereas these systems are smooth, regular, and symmetrical, life itself is varied, complex, and unfavorable to complete systematization. Perfect logic of organization ought always to be under suspicion. So it is with the compulsory school laws. They have been enacted to operate uniformly in the case of all children, but this logic is at variance with reality. The fact of the matter is that when a child has reached a point beyond which he can no longer benefit by school work, his retention there represents a social waste and extravagance. Not only does the State waste on his account equipment and teachers' salaries; it loses in addition the social production in which he might be well engaged. So far as he is concerned, the requisite legal condition is not one that arbitrarily compels him to stay in school until he attains a fixed chosen age but rather one which protects him from improper exploitation in the world of work. This point becomes all the more important in view of the current tendency to extend the compulsory age to eighteen.

On this same reasoning, the fixed uniform compulsory age law may operate to draw from the schools children whose remaining under instruction might mean everything not only for themselves personally, but for the community at large. Their withdrawal might be expensive, indeed, as expensive as the retention of the others, and their addition to social production of insignificant value compared to their potential contribution lost by failure

fully to develop their abilities. Such children ought to be kept in school by compulsion and, indeed, subsidized where it is found that their parents are financially unable to maintain them.

The impracticability of complete uniformity of compulsory education legislation has been referred to in our discussion of deaf children, where it was shown that such children ordinarily require more time for the attainment of the same ends than hearing children. Here again we note the impracticability of such uniform legislation. The time has come when the schools will have to conform to realities rather than to logic. They will abandon arbitrary divisions such as grades based on years rather than accomplishment. They will abandon uniformity of grouping and method. They will become more complex and to that extent more effective.

School provision for poorly endowed children.—The implications of variability and the demand for special schools to be provided for the highly endowed, point as clearly to a special school for those of very low intelligence. The public school has heretofore necessarily been adjusted to the average child. In any large class of unselected children, it will be found that the teacher aims toward the center or meridian child. Children of less than average ability have in recent years received a great deal of attention. This work, while of the greatest importance to the individual children involved, and, too, of social consequence in that it decreases the number of possible dependents, is of very little value compared to the promise of untapped resources involved in the study of the pedagogy of gifted children. After all, the most that is to be expected of the subnormal child, the greatest achievable

attainment, is and always will be less than average. The problem here is very largely one of method, in view of the inability of these children to hold their own with the average group. It is, too, a social problem of curriculum, tending to establish such specific attainable goals as will bring about a maximum of productiveness and self-support and, consequently, a minimum social burden.

This problem will not be discussed in detail here for the reason that experimentation toward its solution has been going on for some years and a somewhat extensive literature on the subject is available. The statement should be made, however, that the writer favors, as fundamental for educational adjustment to modern scientific information and democratic social ideals, the establishment of a system of three schools, one that will educate two-thirds or more of the population, one that will train the very dull, and one that will undertake the development of the very highly endowed. The implications should be faced frankly. Varying provisions should be arranged in accordance with the varying types. The compulsory education law, for example, need perhaps not be as long for the lowest type as for the population at large. This type, too, may during the period of education require facilities and instruction in the amenities of daily life in our type of society such as, in the case of the other groups, are ordinarily cared for in the home.

Summary

The achievement by the school of formulated curriculum goals is conditioned by psychological factors such as maturity, intelligence, emotion, and, in addition, variability in every distinguishable characteristic. In this

chapter we have dealt with two of these conditioning factors; namely, the emotional life of the child as a hitherto neglected educational problem, and the proper adaptation to the known and measurable variation in general intelligence.

While it must be conceded that the curriculum should be as rounded as human nature and provide for complete development, including feeling as well as acting and thinking, the fact is that the schools have so far made no provision and developed no technic for emotional development of a kind that will introduce the child to the cultural inheritance of the race. The cultural life of the American people is in no sense commensurate with the possibilities.

Two important reasons may be mentioned for this failure of the school. In preceding social organization in which formal education has functioned, a social organization fundamentally aristocratic, the introduction to the arts was informally cared for in the home. For the masses, it did not exist. For the aristocratic classes it was the very nature of the environment that gave them their introduction to the arts. The secondary school, the traditional school in which the children of the caste were educated, did not need to concern itself with the arts.

The elementary school, primarily intended for the masses, concerned itself at first only with utilitarian knowledge and skills. When it did add drawing, music, and literature, it did not at the same time develop a new technic calculated to train for enjoyment. It treated the new subjects in the old ways. It worked for knowledge and skills. It paid no attention to emotions. It intellectualized material which, while requiring basic knowl-

edge and technic, should appeal primarily to the emotions.

But if the educative process is to result in effecting a difference in conduct, the school, so far as concerns the arts, will have to discover a procedure that affects the child's emotions. Emotional and intellectual ends are not achievable in the same manner. It will therefore be essential to divide all educational goals into two groups, those primarily intellectual and those primarily emotional, and to establish a procedure for each. Toward the establishment of a pedagogy of the emotions, hardly any work has as yet been done by either the psychologist or the teacher.

When we have learned to isolate and measure intensity of emotional capacity we shall doubtless find a great degree of variability, such as we have already discovered in the capacity which we now measure, namely, general intelligence.

This brings up the important problem of educational differentiation. While it is conceded that differentiation is to be provided for, no universally agreed upon or satisfactory procedure has yet been adopted. Certain basic factors are not for the present modifiable and must, therefore, be counted with; namely:

We cannot make allowance for variation by mere difference in the rate of progress over the same ground. All children must be kept in school for approximately six years. The elementary school must not invade the secondary-school curriculum. Again, in a general way, the objectives of education, such as health and vocation, must remain similar for all.

The problem of differentiation in detail, then, must

be left to experimentation. Certain basic facts may be noted in advance of such an experiment. We should establish, for differentiated education, actually differentiated schools. These schools will require a selected type of teacher, new text-books and other teaching material. They will, too, establish new curricula, a new methodology, and new standards of achievement.

Because of the modern tendency to standardize and, in a sense, automatize human endeavor, because of the danger of mediocrity involved in the one-type school for the masses; because of our failure to maintain special facilities for the best endowed such as are, in a sense, maintained abroad by the double system of schools; because, finally, all these causes combine to rob us of our cultural inheritance and of the creative possibilities of our best minds, this experiment is especially essential to-day. It may be said, in general, that no such experiment is now going on.

Finally, we note that if the development of the highly endowed is important, means must be found for holding them in school for such length of time as is demanded by this development. Uniform compulsory school requirements are not useful. In the case of the very dull, they may eventually be found to cover too long a period. In the case of most highly endowed, the period is probably in certain instances too short. The latter should be retained in school even where such retention is not possible without some subsidy to parents whose economic status does not permit them to furnish the child the requisite leisure and support during the lengthened period of education.

On the basis of the discussion in this chapter, special

school facilities are as essential for the unusually dull as for the most highly endowed. A detailed discussion of this subject is, however, not undertaken, for an ample bibliography on the subject is available.

Problems

This chapter develops two lines of theoretical discussion along which educational investigation is essential.

1. Outline procedure for a practical experiment in emotional education involving:

- a. A study of the sequential appearance of the emotions in children.
- b. A tabulation of those emotions which it is highly desirable to develop, and of those which presumably have no social or individual values to-day.
- c. A means of measuring variability or intensity of emotion.
- d. The relation of emotional development to physiological and to mental age, tending to establish the significance and measurability of maturity.
- e. Pedagogical procedure tending to develop the emotions along the avenues of the several arts.

2. Prepare a tentative curriculum and program for the education of highly endowed children.

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titled "The Super-Normal Child." The student should also see Professor R. R. Rusk's lecture "The Super-Normal Child," in the Child-Study Yearbook for 1921 and his brief note in School and Society, Vol. XVI, p. 443.

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CHAPTER XV

METHOD, MANAGEMENT, MEASUREMENT

The teacher in charge of a group of children faces a problem that has two phases: first, the method of teaching, and second: the business of management. About each of these phases there has gathered an accumulation of experience, tested at many points by experiment and theory. One can understand present practice in each instance only in the light of the historical development of that practice.

I. Management

Management as a phase of teaching comes to the fore with simultaneous instruction, and its problems and their solution are therefore coincident with the origin of that form of instruction. The Brethren of the Christian Schools organized by Jean Baptiste de la Salle in 1684 are to be credited with the first practical establishment of the method of class or group instruction. It is to the genius of La Salle that we owe our first manuals prescribing a routine for the establishment, conduct, and organization of schools. It is interesting to note, too, that it is only after the establishment of such accumulated information that teacher-training can begin. The Christian Brothers were the first teachers who were subjected to a course of professional training that dealt with

method and management rather than, or as well as, with the actual content of instruction.

In English-speaking countries the beginning of accumulated experience and knowledge regarding management is found in the work of Andrew Bell and Joseph Lancaster, who began their remarkable work in the year 1800, and who, relying, as they did, on very immature assistants, established in great detail a system of mechanics and of routine school procedure. It is to them, too, that we are indebted for the first serious consideration of problems of classification of children for purposes of instruction.

While progress has undoubtedly been made in the last century in class management, and the schools of to-day do not resemble either those of the Christian Brothers or those established under the monitorial system, it is safe to say that this fact is due rather to the continuous improvement in personnel than to any information that may be seriously considered as scientific. Professor Bagley and others¹ have carefully and very usefully thought out the problems involved in management and offered suggestions which tend to the elimination of waste. But of rigorous and unalterable standards there are almost none. In the last analysis, management is based rather on experience than on science. In view of the large number of books which serve excellently to detail that experience, it does not seem proper to repeat it here.

It must be noted, however, that management is no more firmly established and settled in our practice than are other phases of conduct in the elementary school; it is in flux. The movement for socialization which is to

¹See Bibliography at end of chapter.

be discussed in a later section, and such complete reversal of established procedure as is described by Professor Meriam under the subject of observation, or by Mrs. Johnston in her school in Fairhope, by Miss Parkhurst in her school at Dalton, Massachusetts, or as is implied in the project method, or the school excursion as a method of instruction, indicate that there are as yet no finalities in this field, subject as management must be to ideas of classification, curriculum, and methods, none of which are firmly or finally established.

It ought to be noted, too, that one great scientific field of potential helpfulness in this matter has not yet made its contribution; namely, the field of group psychology. It was indicated in a former chapter that eventually we shall have to learn in part from the students of social, or group, psychology what the optimum number of children in the class should be for any given age or subject. In illustration of this point we may note that F. H. Hayward, a student of method in one particular field, holds that "for some subjects large classes are an advantage inasmuch as, in small classes, enthusiasm is not easy to work up." So, too, we shall have to learn from the science of psychology exactly what differences there are between teaching an individual by himself and teaching him in a group. Some things, of course, every one knows: The power of emulation and rivalry as well as some other instincts have been and are constantly being exploited by teachers, not always entirely for the child's best interests. But if class instruction is worth while; if it is really different from merely teaching an individual in the presence of a group, we shall have to accumulate exact information regarding these differences as well as regard-

ing those points which are worth developing, and others which one must avoid.

In the field of management proper, it is perhaps not too much to expect that from studies of group psychology at various maturity levels and in conjunction with intelligence and emotional status, we shall secure norms of conduct that shall be real and attainable rather than arbitrary and based on ideals set by adults for children. The word "discipline" has a dangerous sound. It smacks of standards imposed from above. It has associations broader than education. We learned from Rousseau long ago that true education requires that we deal with the child on his level, not on ours; that childhood is a phase of living and not a mimic adulthood. While we have made great advances in that direction, and to-day refer to a person who is too arbitrary in his demands as one "who does not understand children," the phrase "classroom control" still harks back to older and more readily attainable ideals. It is possible that the adult's idea of how children should conduct themselves will some day be replaced by objectively determined norms of what is attainable consistently with their best interest.

The movement for socialization which has been referred to, has as one of its underlying assumptions the fact that in view of the student's future citizenship in a self-governing democratic community, the classroom ought to be as little autocratic and as much democratic as possible in order to train students in self-control, co-operation, participation, and other of the qualities desirable in self-governing communities. It is intended by this procedure to produce an important by-product of all instruction, regardless of subject. Alluring as the

theory sounds, it is necessary to be on one's guard against its enticement. The mere statement of these things does not make them true. The fact remains forever that there is a difference between children and adults; that it is the business of adults to carry on the work of nurture until children shall be placed on a self-sustaining basis, and the only safe guidance to ideal class organization will come from an exact study of the factors of group psychology which operate at varying ages.

II. Method

By far the more important of the two phases above referred to, is that of method. In the chapter on curriculum the statement was made that there have been noted thinkers in the field of elementary education, and that their contributions center about method rather than curriculum content. There is no phase of elementary education in which it is more essential to bear in mind the historic background and the deep roots of current practice than in this field of method. Almost every current suggestion and every experiment now being carried on has an ancestry and dates back to a source of prior inspiration. Many a suggestion in current school practice which looks unfeasible and like a passing fad may be found in the end to be the result of a continuous process of thought running for a century or more, and in that way be shown to have a stable basis. While it is true that many innovations now being tried out will not prevail in the end, and while it is true that many ideas in themselves excellent are being carried to impracticable extremes, which will eventually have to be curbed, it is a fine thing to remember that in the field of method in the

elementary school there has run a sound current of thought dating back a great number of years, which has been continuous in progress, and which is becoming richer and more fruitful decade by decade. Almost all of our present practice has deep and sound roots.

While it is necessary, therefore, to glance backward, it is not within the scope of the present work to give a detailed historic résumé, if only for the reason that the historic development to be referred to has already been so well described, as the reader may readily gather from the bibliography at the end of this chapter. The following brief paragraphs must be regarded as interpretative rather than historical:

Rousseau.—At the beginning of all current thought and practice, particularly within the field of method is found the work of Jean Jacques Rousseau. "In Rousseau's teachings, notwithstanding their extravagance," says Professor Monroe,² "is to be found the truth upon which all educational development of the nineteenth century is based. . . . He became the inspiration of those educational reformers who reduced his vagaries to practicable procedure. He was the forerunner of many who, all unconscious of their indebtedness to the despised revolutionist, have followed in the trails he blazed through the forest, until now they have become the broad highway of common travel."

In an even more direct and concrete manner, Professor Parker³ lists fourteen main points in Rousseau's philosophy of education and notes after each proposition the

²P. Monroe, A Textbook in the History of Education, p. 571. (Macmillan, 1914.)

³S. C. Parker, A Textbook in the History of Modern Elementary Education, p. 206. (Ginn, 1912.)

character of its later development by educational thinkers, and its current phase.

Briefly then, what was Rousseau's contribution? It may be said that Rousseau was the first of the contemporaries. If the term "modern" is to be stretched so far as to refer back to the period immediately following the Middle Ages, then it may be said that Rousseau was the first of the men of to-day. He was a severe critic of practice in his day in many fields, political, religious, social, and educational. Our concern is with his educational criticism.

The first and most important thing to say is that Rousseau discovered childhood. In all the ages preceding Rousseau, childhood was looked upon as a period of preparation for future living. It was the business of adults to make the child into their own image. The best brought up children were miniature adults. Childhood *per se* had no rights. Its impulses and tendencies, such as the desire to play and the dislike for sedentary formal school work, were unuseful and non-social tendencies that must be eradicated. Rousseau was the liberator of childhood. It was he who formulated the now entirely obvious theory that childhood is not a preparation for, but a phase of living, and that the child should, therefore, not be deprived of youth in order that he may be prepared to live later on, but should be given the opportunity to live to-day. If the child be given an opportunity to live to-day, the future, thought Rousseau, would take care of itself. The child was equipped to develop, to grow, to become, and education should assist him in this natural development rather than attempt to make him over. The child's natural impulses are good, not bad, useful, not useless,

and therefore should be taken advantage of and developed for his use, not eradicated.

As a logical consequence of this basic principle, Rousseau vehemently objected to formalism, conventionality, artificial behavior, mimicry, mere verbiage in education, mere memorizing, and particularly the repression of the esthetic emotions; and the attempt to repress and remodel children, making them into miniature adults. He stood for childhood as a phase of living. This involved providing children with activities appropriate to childhood rather than adulthood. It involved treating the child as a child rather than attempting prematurely to make him take on the manners of an adult. The corollary following from this resulted in furnishing in school facilities for physical development, the development of sense perception—which seemed to Rousseau the natural method of education—provision for motor activities, and, most important of all, the doing away with premature memorizing of words. The preceding method of education had consisted largely of loading the memory with things beyond the child's comprehension, on the theory that they would be useful later on. The image in the child's mind back of this "knowledge" was verbal rather than real. The child might memorize a definition, for example, and satisfy his teacher with the uttering of words, and not know really the thing described.

Rousseau contended for the education and development of natural interests and instincts as against the then current education which consisted of artificial effort. He believed that education was a natural process of development and not an artificial means of taking on arbitrarily the ways of grown-up life. He believed that education

consisted of development and growth and not of accretion and external acquisition of information. He believed that education should result in response to natural instincts and interests and not in response to external force represented by society and the school.

"That education is a natural, not an artificial process," to quote from Professor Monroe again,⁴ "that it is a development from within, not an accretion from without; that it comes through the workings of natural instincts and interests and not through response to external force; that it is an expansion of natural powers, not an acquisition of information; that it is life itself, not a preparation for a future state remote in interests and characteristics from the life of childhood—these ideas constitute the fundamental teaching of Rousseau. . . . To Rousseau belongs the honor of deriving his educational theories from the nature of the child. . . . Here first education finds its purpose, its process, and its means wholly within the child life and the child experience. An appropriate development of childhood is the purpose of each particular stage of education; the child's nature and the child's growth are to determine the process; the child's experience is to furnish the means."

Heinrich Pestalozzi.—Pestalozzi is known as the thinker and practical school man who first subjected Rousseau's theories to the test of practice. As was inevitable, the discovery was made of some things that were not practical, and others that could be so developed and enlarged as to give them the appearance of new contributions. Pestalozzi adopted and acted on Rousseau's

⁴P. Monroe, *A Textbook in the History of Education*, pp. 566 and 571. (Macmillan, 1914.)

theory that education is fundamentally the organized development of the individual mentally, physically, and morally. He adopted the theory, further, that we become educated not by memorizing or being told things, but by doing them ourselves—by living, by experiencing, by contact. The best form of education, he thought, comes through experiences and activities initiated by spontaneous desire.

It will hardly be fruitful to dwell on Pestalozzi's mistakes. We have learned that it was not psychologically true, as he believed, that the best way to present things to the child is through the analysis of knowledge into its simplest elements, and by providing, therefore, a series of graded exercises leading from the simple to the complex. We no longer teach penmanship, reading, and arithmetic as Pestalozzi and his followers taught them. We do, however, firmly adhere to his ideas that education should come through perception and sense experience rather than through mere words. He put into practice Rousseau's idea of sense impressions, and his belief that the child should get the real meaning of information rather than knowledge through verbal representation. He put into practice the theory of development through activities, experiences, and impressions, and on this basis he completely reorganized and gave a modern aspect to several subjects of the curriculum such as geography, drawing, and writing. He definitely began to "psychologize" education by adapting processes to the capacity of the child, and initiated the theory that to know how to teach we must learn how the child develops and learns; and that we must organize our educational procedure in terms of the child's educational development.

Johann Friedrich Herbart.—Herbart developed the doctrine of interest and gave impetus to the reorganization of school procedure in terms of interest, using a hitherto undeveloped source for easing, simplifying, and increasing the rate of the educative process. He developed the Greek idea of abiding, many-sided interests as the aim of instruction. It was he who first pointed out the method of apperception; namely, the use of present interests as a means of contact for beginning the learning of new things. He developed a methodical organization of the material of each subject for purposes of instruction and believed in the use of a central core to the curriculum, which for his purpose consisted of literature and history. He believed, too, in a serial arrangement of the curriculum following the chronology of historical development, because of his belief that the individual recapitulates the history of the race. He gave much attention to the organization of the recitation, and organized the formal procedure of the lesson into the logical but too formal "five steps," i.e. preparation, presentation, comparison, generalization, application.

Friedrich Froebel.—Froebel developed other phases of the Rousseau thought in his kindergarten. "Self-activity," a real application of the doctrine of education through development; the use of handwork in education for the first time, careful devotion to nature study, represent some of his contributions. Froebel showed in detail the way of making educational use of certain of the child's natural instincts and impulses by developing methodically and in detail for educational purposes one of these; namely, the child's desire to play. Much use has since been made of this theory, and much joy in school

life to-day is due to the fact that teachers have learned to do work through play.

Finally, the very latest topic of educational discussion, namely, socialization, was first brought to the fore by Froebel. He saw clearly that a group of children in a class formed a social unit differing from each single individual. It was he then who began to lay stress on social participation and to make educational use of the social situation presented by the presence of a class. He developed a technic for motor experiences in the form of drawing and games and for manual work in his beginning of kindergarten handwork.

Method a problem of simultaneous instruction.—We come now to a discussion of the problem of method to-day, a field fully discussed in the current literature of education and, therefore, to be dealt with summarily here. Method in American discussion to-day almost always means method of teaching a group. The teaching process as it applies to the single individual is referred to as the learning process, rather than as method, and forms one specific phase of the discussion of method. All current contributions involve a discussion of the teaching of the group.

Indeed, modern methodology implies group instruction not merely because group instruction is the only form now carried on practically, but because modern method is in principle rooted in the very fact of the existence of the group in the teaching situation, a situation frequently utilized as one means toward the development of method, as, for example, the method of socialization, to be referred to later.

Method may be looked upon as either general or special

from at least two points of view. From the point of view of the subject-matter involved, general method comprises all those principles that tend toward the establishment of a general teaching technic, regardless of special subjects. In this sense, the special methods center around the technic developed in the teaching of special subjects, in many of which the history of special method dates all the way back to the work done by Pestalozzi in his schools. This is the sense in which the terms are ordinarily used.

From the point of view of the child, on the other hand, general method may be taken as referring to the average or typical child; that group of the population that represents well in excess of fifty per cent. of the total population. At either extreme there are undoubtedly children to whom no set of principles involved in any such discussions as project or motive would apply. At the lower end there are children whose mentality ranges below average, from very dull to feeble-minded. In the case of these children a complete new methodology must be worked out. Certain phases of habit formation which take care of themselves in the case of the normal child must be very carefully stressed in the development of these classes. On the other hand, initiative and the ability to generalize need not be emphasized. To a very considerable extent the methodology has been worked out and given a great deal of attention.

But for the unusually well endowed, for the group that contains potential genius, it is entirely safe to say that no set of principles whatever, and very little formulated experience, now exist so far as their education is concerned. Special method, special equipment, special

texts, size of groups, length of time to acquire mastery of knowledge or skill, means of emotional development—all this is in the future, and still dependent on a great deal of careful, patient, and enduring experimentation.⁵

Method and other fields of inquiry.—The phase of education represented by method brings out clearly the elusiveness of the boundary lines between organized fields of activity and the basic reliance of one upon the other. The reliance of method upon the data to be presented by psychology is obvious enough, and has long been recognized. The child's development, the learning process, the variation of children, the meaning of education, the laws of memorizing, the psychology of interest, and many similar aspects are known definitely to contribute toward method. It is well to observe, however, that in every one of the instances mentioned, the contribution of psychology has been in the form of the study of the individual. On the other hand, frequent reference has been made in the course of this discussion to the fact that the principles of group psychology, as these apply to the situation presented by the classroom, have not yet been formulated.

But psychology is, so far, practically the only field of research whose relation to method has been made clear. The boundary between method and the field of ethics, for example, is very rarely recognized. The school has availed itself freely of devices such as the giving of rewards, artificial motivation, rivalry, and emulation for the purpose of achieving its own ends as conceived by adults. Are these devices ethical, and are they for the

⁵ For a beginning in this direction, see T. S. Henry, "Classroom Problems in the Education of Gifted Children," Chapter VII, 19th Yearbook of the National Society for the Study of Education.

child's best interest? Is it socially desirable to develop those traits that result from excessive competition? These questions still remain to be thought out and answered. The laws of group behavior still remain to be developed by psychology. The worthiness of many devices commonly and traditionally employed in school procedure is still to be tested by students of ethics and morality. Finally, entering the field of sociology, it will be necessary for students of the group life as it expresses itself socially, politically, and in other ways, to criticize the procedure of the socialized recitation, and to outline characteristics to be developed because they are valuable, and others to be avoided because they are not.

Intellect and emotion.—We must now revert to a preceding discussion, necessarily dealt with in part in our consideration of curriculum objectives; namely, the development of emotional reactions, or, speaking more specifically in relation to the arts, the training for appreciation. If, as we saw in our discussion of the curriculum, the objectives are to be either primarily intellectual or primarily emotional, then method, too, must proceed along one of two paths.

One of the curriculum objectives now regularly set down is that of the best use of leisure time—an objective that is to be attained through enjoyment of the best that the race has inherited, and to the child's utmost capacity. But the school has heretofore not known any method of affecting the emotions even where it has dealt with the arts. It has intellectualized them. Crude use has indeed been made by the school of the emotions, as, for example, in many of the instances referred to in the preceding paragraph. Rivalry, emulation, desire for re-

ward, these are all emotional states induced for the purpose of achieving ends desired by the adult, but not necessarily useful to the child, as for example, the mastery of certain material.

This use of the emotions merely to serve the ends of the teacher, or even, presumably, the ends of society, is not at all the type of emotional reaction here referred to. The great objective here is to do work that will result in enjoyment rather than knowledge. In terms of goal, method may result in one of two ways, either in knowledge or in appreciation. When we come to a discussion of the method of inducing emotional reactions such as the enjoyment of any particular art, we find that "the literature of this subject is scanty almost to non-existence."⁶ . . . Mr. Haywood makes a pioneer attempt on the basis of experiment to outline procedure in this field, and his work should be studied by the student whose interest is aroused.

One fact stands out most clearly from this discussion; namely, that the time has arrived when the propriety of relying upon a text as the sole method of achieving an educational goal should be questioned. Poor though that method of instruction may be in a field whose ultimate goal is the acquisition of information—a method which is being replaced by the use of the project to be discussed in a later paragraph—it is obvious that no amount of mastery of opinions will ever induce emotional reactions. That is exactly the old method of instruction in this field, whereby the student of literature learned, by reading a history of that subject, what others thought of certain great persons and

⁶ F. H. Hayward, "The Lesson in Appreciation," p. 5. (Macmillan, 1915.)

books. But here we come to the end of the usefulness of that process. Here at last we come quite definitely from the books to the teacher; to a break with one too well established phase of American school procedure. Books lack fire; they cannot work up excitement.

Some phases of current discussion.—General method, in the accepted sense, of principles applicable to various subjects in dealing with the large group of the child population who center about the average, is undergoing some current discussion and reorganization, which may be briefly noted. The modern school, says Dr. Freeland,⁷ is developing “a new methodology which works through the use of problems, projects, motives, and interests.” Leaving to the extensive literature on the subject, the discussion of problems, motives, and interests as aids in instruction, we shall note here the general tendency to reorganize school procedure and relations which goes by the name socialization, and the method of procedure referred to as the project.⁸ It has already been pointed out that, in effect, none of the proposals in the current discussion of method is really new. They are very largely a reemphasis and an enthusiastic application of old and well-known principles.

Another warning may not be out of place. Teaching is fundamentally an art, not a routine. Good teaching involves self-expression and creative thinking on the part of the individual teacher, and the efficiency methods of the factory are not particularly applicable or desirable

⁷ G. E. Freeland, *Modern Elementary School Practice*, p. 5. (Macmillan, 1919.)

⁸ For a brief review of all current discussion in the field of general method, see S. E. Davis, *The Technique of Teaching*, Chapter I. (Macmillan, 1922.)

in the standardization of teaching. Yet it happens not infrequently that highly successful work on the part of an enthusiastic teacher or group of teachers in the application of some established principle is hailed as new "method," and the tacit assumption is that the method should be extended. The "group psychology" of the American teaching personnel is such that few dare to resist these on-rushing waves of innovation, each in turn proclaimed as "revolutionary" and promising impossible results.

Most teachers attempt to be up to date. But where the basic results were due to the teachers, not the method, the latter, standing alone, frequently fails to fulfil expectations.

It is true that the best way to establish correct principles of procedure is to study the performance of successful practitioners and to generalize the principles. In that sense the "new" phases of method to be noted are important. On the other hand it may be recalled that we in America have already gone through the experience of seeing the deadly formalism and frozen procedure that follows the rapid acceptance of method as method, in the too rapid spread of Pestalozzian object-teaching and the Herbartian recitation. History has its lessons. Having gone through this phase of American educational development, we should be slow to deprive ourselves of the really vivifying values of the newer procedure by forcing its adoption too rapidly and on teachers who would necessarily adopt the form but not the spirit. Teaching is an art. Results are, in the long run, more important than procedure.

Socializing school procedure.—The theory underlying the socialization of school procedure is, primarily, not

so much a new contribution toward the better or more rapid achievement of standard curriculum objectives—although it furnishes motivation toward this end—as an attempt to secure, as a by-product of the regular work, habits, attitudes, and ideals of group activity suitable for the citizens of a democracy. Fundamentally the theory is this: the child under training is not to live for and by himself alone. It is necessary, therefore, that he receive the type of training that will be most useful to him as an adult coöperating with, and participating in, group activities. This result, it is conceived, may be achieved incidentally through method used in carrying on the instruction in the ordinary subjects of the curriculum. It is largely a matter of procedure in which the school and class situation are changed. In place of the traditional situation in which the teacher assumes the right of complete dictation and of making all decisions, and in which the chief virtue expected of the child is obedience, a democratic atmosphere is established and the children are permitted and, indeed, invited to assist as far as their capacity permits, not only in the making of decisions, but in the actual taking over of management and control.

It should, of course, remain basic in education that it is the business of adults to rear children and any abdication of this obligation merely results in futility and chaos. Socialization at its best is well within the control of this responsibility for education. The goals to be achieved are much clearer to the teacher than to the pupils, whose attention, indeed, may well be confined to the immediate situation. Within these limits, the idea of socialization surely promises beneficial results.

The common defects of the traditional procedure to be

remedied by socialization, as pointed out by proponents of the movement, are that the teacher has heretofore failed to avail himself of the fact of the existence of the group, and has simply taught each individual in turn in the presence of the group. There has been a tendency for a few to monopolize the activities of the class. There has been a lack of coöperation on the part of students. The traditional class procedure develops a distorted sense of responsibility in that the responsibility for results is made to rest exclusively on the teacher. There has been a tendency toward formalism and perfunctoriness. The aims of the proposed form of recitation are: (1) to provide a stimulating social setting; (2) to find the satisfying activities; (3) to develop character; (4) to develop initiative.⁹

The project.—“When a new building is to be erected,” says Booker T. Washington in his fascinating volume, “Working with the Hands,” “the school industries join their activities in a common cause. The project sets in motion first the wagons to be used in removing the excavated material (and made in the school shops). Then come the brick-makers turning out 20,000 bricks a day in the school kilns. . . . The school sawmill turns out the lumber for the building in the course of erection.” . . . All of this would be of little consequence for our discussion if it represented merely a building industry. “But this work,” says Dr. Washington, “is for the benefit of the student, not to make the school self-supporting.” The student is not learning subjects in any abstract manner; he is carrying on the “activity” and the learning

⁹ See C. L. Robbins, *The Socialized Recitation* (Allyn & Bacon, 1920), and W. T. Whitney, *The Socialized Recitation* (Barnes, 1915).

is incidental. This is equally well shown in another activity, described by Dr. Washington: "An instructor (is working) with a class of students who are learning to draw up contracts for jobs in carpentry or building. The contract is read aloud by the instructor, who asks the other members of the class to criticize it. One of them points out a flaw which would allow the owner to 'crawl out' of his bargain on a technicality. Another is pleased to discover that the arithmetic is so bad that the estimates of the cost of material would land the contractor in the poorhouse."

Here we have an example of the standard subjects of the curriculum functioning, and of the students acquiring information, facilities, and skills not apart from, but incidental to very real activities. The founder of Tuskegee Institute had an aversion toward the presentation of material "apart or separate from the uses which it serves in life pursuits," and did not believe in teaching "elements, processes, and principles used in carrying on the real activities of life . . . but without relationship to the activities themselves," a process which Dr. Bonser charges against current educational practice.

This is as good an introduction as any abstract statement that might be made of the principle of teaching that is now being theoretically formulated as the "project." It is defined by one writer¹⁰ as "some practical activity planned by the pupils," by another¹¹ as "a situation that involves a number of problems that must be solved satisfactorily in order to carry out the project

¹⁰ S. C. Parker, *General Methods of Teaching in Elementary Schools*, p. 324. (Ginn, 1919.)

¹¹ H. W. Nutt, *Principles of Teaching High School Students*, p. 175. (Century, 1922.)

successfully." "A project," says still another proponent,¹² "is a purposeful activity. Whatever one may purpose and proceed to carry out may be called a project, whether it be in a constructive activity, in investigation of some kind, in developing a skill or method of action, in enjoyment of any kind, or in any other form of purposeful enterprise."

There is, to a considerable extent, an exact opposition of interest between the continuous tendency to ever greater specialization in formulated knowledge and the needs of the pupil, which are, after all, expressible in terms of life activities rather than in highly specialized fields of information. An over-great respect for the boundaries between subjects gives an unreal appearance to the work of the school and runs the risk of having the information presented for its own ends without regard to function. It is interesting to learn, too, that this segregation of information into grooves is not so fundamental as might appear. "Prior to Aristotle," we learn from Professor Robinson in his stimulating volume, "*The Mind in the Making*," "Greek thought had been wonderfully free and elastic. It had not settled into compartments or assumed an educational form which would secure its universal transmission from teacher to student. It was not gathered together in systematic treatises. Aristotle combined the supreme powers of an original and creative thinker with the impulses of a text-book writer. . . . He seemed to know everything that could be known and to have ordered all earthly knowledge in an inspired codification which would stand the professors in good stead down to the day of judgment."

¹² F. G. Bonser, *The Elementary School Curriculum*, p. 89. (Macmillan, 1920.)

The effort to overcome this tendency to compartmentalize information and to present it as a set of abstractions apart from reality, has been expressing itself in the high schools under a synthesizing movement that has resulted in the organization of such hitherto unheard-of courses as general science; the same tendency is just beginning to express itself in the American colleges in the so-called initiatory or survey courses for freshmen; in the elementary school it is expressing itself by means of the movement which has come to be referred to as the project.

The curriculum, in view of this procedure, would consist of activities. These activities develop naturally, regardless of "subjects," cutting across artificial boundary lines, combining them, using them as means to ends instead of presenting the abstractions as ends in themselves—conforming in short to the realities of daily life. And so it is to be noted that it has become very difficult to maintain any hard and fast distinction between the field of curriculum and that of method. Material of instruction and method are melting together through the use of the project into the new "activity." The same phenomenon is occurring as regards the hard and fast distinction between the various subjects of the curriculum itself. Separate subjects are apparently to become somewhat less important as such, at least in the hands of the most expert teachers, and the departmental organization of the school, discussed elsewhere, seems in danger, for its existence ordinarily depends on the separateness of subjects in the curriculum. On the other hand, it is conceivable that experts in the various subjects may combine for purposes of the project so far as the child is concerned. Even the grouping of children in grades

must give way, for a project may be carried on by several grades, or indeed by the same children through several years; and so we come to this rather strange situation that along with the increasing tendency in education, as elsewhere in modern life, toward high specialization, the school has developed a peculiar process of synthesis which tends to abolish distinctions between groups, subjects, and, indeed, between subject and method, replacing the old ideas of drill by aims that shall be attained by means of "experiences," and which in the course of development combines material and method.

This process of synthesizing brings about a great deal rougher divisions and tends to center on the child rather than on the mastery of subject-matter. It will ultimately require a complete redefinition of the function of the teacher and of the school, and of all the old implications of the school institution such as type of building, type of texts, grades, and methods. We are parting from the easy simplicity involved in form, system, and precedent and are tending toward a bewildering but very real complexity—the complexity of life and living. For mimicry the school is apparently substituting "the real business of living."

III. Measurement

The greatest single characteristic of contemporary educational procedure in the United States is the application of mathematically precise, objective and verifiable methods to the solution of the many problems in the field. It would not be safe to say that a great many ultimate and final scientific laws have been established in education. Indeed, it would not be safe to say that the

mode of procedure now being followed in any phase of measurement is extensive or final. Placing oneself at the vantage point of a century hence, it would probably be best to say that the workers in education are trying to fashion tools with which to begin to proceed scientifically in education. Nevertheless, science in education is here. Education has ceased to be everyman's field. To venture an opinion in the matter of education of children without having previously studied in this field of inquiry, is an unwarranted presumption. It takes little imagination to know that in the next twenty-five or fifty years the education of youth will become so transformed as to be unrecognizable in comparison with the same process fifty years ago. The present generation of educators is making a contribution to the nurture of the race that is hardly to be exaggerated even by the most vivid imagination.

There now exists an extensive literature on scientific quantitative procedure in education, and it would be unjust to attempt in part of a single chapter so to popularize or to pretend to summarize this literature as to discourage the student from perusing it in detail. What follows therefore is merely by way of introduction and in no sense a pretense at comprehensiveness. At most it is an effort to lay the field before the student, and an endeavor to interest him in further study.

One of the chief characteristics of this procedure is that it is precise and quantitative, and that it uses as tools to a very great extent the method and technic of statistics. "In proportion as it becomes definite and exact," says Professor Thorndike, an acknowledged leader in this movement, "this knowledge of educational products and

educational purposes must become quantitative, taking the form of measurements. Education is one form of human engineering and will profit by measurements of human nature and achievement as mechanical and electrical engineering have profited by using the foot-pound, caloric, volt, and ampere.”¹³

Measuring potentiality.—But one cannot be scientific in general; one must apply one’s tools to specific problems. The first great field to be noted in which this quantitative statistical procedure has been absolutely invaluable, and indeed, indispensable, is the field of intelligence measurements. With the use of this instrument, psychologists have taken the contribution of Alfred Binet and established remarkably reliable standards. Again they have developed this instrument so that it is now not only one for measuring single individuals, a process which might perhaps have barred its extensive use in the schools, but one which may be applied to large groups simultaneously. The next step in the process is also being attempted. As between a group of individuals quantitatively describable in homogeneous terms, as for example, persons between I.Q. 110 and 120, there are qualitative differences. These the science of educational psychology is beginning to learn to select. Tests are being devised, says Professor Thorndike,¹⁴ to measure “various scholarly capacities, such as the capacity to learn arithmetic, the capacity to learn to spell, or the capacity to learn Latin.” The aid of this tool, too, is being employed for purposes of standardizing the advice to be given to children, both educational and vocational.

¹³ E. L. Thorndike, “Measurement in Education.” The 21st Year-book of the National Society for the Study of Education, p. 1.

¹⁴ *Ibid.*

Measuring the product of instruction.—The second field to be noted is the field of educational tests. The complete unreliability of ordinary marking and of the traditional examination has been repeatedly demonstrated. One need state here only that many workers in this field are establishing accurate means of determining the pupil's status in a given school subject. It has now become possible to apply a standard test or scale to a child's knowledge in arithmetic, penmanship, or spelling, and to use the result found for very many purposes, as, for example, to classify him properly and locate him in the school, to pass judgment on the teaching ability to which he has been subjected, or to pass judgment on the suitability of the curriculum in use.

An interesting correlation is being established between the method of measuring natural capacity and the method of measuring achievement in standard school subjects. After all, achievement in a school subject is not a fair index to the character of the student's school work. It is obvious that a given ability attained in a school subject may be poor for a brilliantly endowed student who achieves it without work, and excellent for a poorly endowed student who secures it only with arduous effort. When we have measured a pupil in respect to his attainment in a school subject and his capacity for that subject, the quotient of achievement developed by capacity is an important measure of accomplishment. A score of 70 made by a capacity of 70 is obviously very different from a score of 70 made by a capacity of 140.

"In elementary schools which are managed scientifically, these accomplishment quotients or ratios, familiarly known as A.Q.'s, are recorded year by year for each pupil. The pupils of great natural ability are required to do

enough more than the average to keep their A.Q.'s near 1. They are thus protected against habits of idleness and conceit. The pupils of little natural ability are not rebuked or scorned for failures in gross achievement. They, too, are required simply to maintain their A.Q.'s near 1."¹⁵

Other phases of measurement.—Scientific procedure in education is being pushed in other directions and in these it is objectivity rather than quantitativeness that is being stressed. In such a field, for example, as passing judgment on the suitability of a building for school purposes, Strayer has established a yard-stick with which one may measure the building in question, and obtain his final judgment in terms of a numerical score somewhere between entirely unusable and perfect. This method is objective but not necessarily dependent on quantitative or statistical procedure in its determination. Rather is it a means of organizing our thinking on the subject of school buildings in formal terms, and in a manner to guard us against mere intuition, the overlooking of important features, or the giving to certain features of undue or too little weight.

In other words, an attempt has been made in several fields, such, for example, as passing judgment on the quality of a teacher, to enumerate all of the factors that can possibly enter into the final judgment, to determine an exact weighting of relative proportion by asking a sufficiently large number of experienced judges to express opinions on that subject, and taking a consensus of these opinions, setting down measurable standards for any point. By this method we have arrived at fairly well

¹⁵ *Ibid.*

recognized means of testing school organization, school supervision, teaching efficiency, school plant, and equipment. Other scales are being established.

In some fields both types of procedure are being employed. In judging teaching efficiency, for example, standard tests applied to the children represent one point in the chain of reasoning leading toward the ultimate score, the other measures representing various phases agreed on by educational thinkers as constituent elements of good teaching. The following "system for rating teachers," prepared coöperatively by the teaching group of Duluth, Minn., well illustrates this process:¹⁶

I. Instructional skill.

1. Does her daily work show preparation and thought?
 - (a) Does she know specific aim of subject?
 - (b) Does she know ultimate aim of each lesson?
 - (c) Is she able to place central truth in lesson before pupils?
 - (d) Is her information accurate?
 - (e) Does she use good English?
2. Does she use skill in conducting drill exercises?
3. Is she definite in her instructions?
4. Are her pupils responsive?
5. Does she stimulate thought?

II. Pupil achievement.

1. Do intelligence and achievement tests show that her pupils have made sufficient progress?
2. Are her pupils forming right habits of study?
3. Are her pupils gaining in power of thought and expression?

¹⁶ Bracken, J. L. "The Duluth System of Rating Teachers." Elementary School Journal, Vol. XXIII, p. 110.

4. Are her pupils growing in consideration of others and the school?
5. Do results of work show that she is adapted to grade or subject she teaches?

III. Administrative ability.

1. Is her room neat?
2. Is there a cheerful, orderly spirit of work in the room?
3. Are her records and reports satisfactory?
4. Is routine economically and systematically organized?
5. Does she maintain good order and discipline?
6. Do her outside duties and pleasure interfere with her school life?

IV. Professional attitude.

1. Is she loyal to co-workers?
2. Does she coöperate with her co-workers in school activities?
3. Is she interested in the general physical and moral welfare of her pupils?
4. Does she benefit by suggestion?
5. Does she show continuous professional growth?
6. Does she participate in and contribute to educational gatherings?
7. Does she seek general information through travel or current interests?

V. Personal equipment.

1. Is her general appearance favorable?
 - (a) Is she neat and clean?
 - (b) Does she dress appropriately?
 - (c) Is she thoughtful of her own posture and manner?
2. Is her health good?
3. Is her voice agreeable?
4. Is she dependable?

5. Has she a sense of humor?
6. Has she a sense of fairness?
7. Is she tactful and sympathetic in dealings with pupils, colleagues, and patrons?
8. Can she adapt herself to unusual circumstances?
 - (a) Is she resourceful?
 - (b) Does she use initiative?
9. Is she pleasantly and effectively aggressive in conversation and conference with pupils, patrons, and supervisors?

An example of this process of formal thinking in fields where objectivity heretofore seemed impossible of attainment, and an illustration, too, of the various directions in which it is to expand in the future, is to be found in one of its most recent applications, namely, the selection of texts. Doubtless experts in particular fields have always been able to make up their minds with considerable reliability, regarding the value of a text-book, but such reasoning was hardly verifiable, and indeed the ultimate result might be so dependent on the particular prejudices or educational ideas of the judge as not to be entirely reliable.¹⁷

Finally it is to be noted that this procedure in education has given rise to a new method of comprehensive examination of a school system known as the survey, a means which judges the efficiency of a school or of a school system by applying as far as possible all the objective criteria at hand for determining efficiency. For the first time in history it is possible to compare

¹⁷ See C. R. Maxwell, *The Selection of Text-books* (Houghton Mifflin, 1921), and R. H. Franzen and F. B. Knight, *Text-book Selection* (Warwick & York, 1922).

school systems not in vague terms, which may be controverted, not on the basis of bombast or parochial pride, but in the cool, impersonal, objective, and inescapable terminology of science. This fact alone of the possibility of making surveys will more and more bring pressure to bear on the backward schools, and will give ever greater impetus to the very best in American education.

Summary

We have considered in this chapter briefly and for the sake of rounding out our general discussion, three subjects which themselves properly form the subjects of independent volumes; namely, management, method, and measurement.

In the field of management we found that practice is based primarily on experience, somewhat on the formal analysis of the problems that have been made by students of education, but very little on the basis of the findings of exact science. That we have not developed any final practice in this field, was indicated by reference to the current movement for the socialization of school procedure, which would quite reorganize the traditional classroom. The field of sociology, contributing a point of view for interrelations within the group most useful to cultivate; the field of ethics, indicating the moral qualities that may be developed and those that should not, passing judgment on the usefulness, for example, of such qualities as competition; and, finally, the field of group psychology, will, ultimately, each influence our thinking in the field of management.

In the field of method, we again face the teaching situation involved in the presence of the group. If all we did

were to teach the individual in the presence of the group, the laws of learning would suffice for our purpose. But we are called upon to utilize the group situation. We look at method as general and specific from two points of view; namely, general method may refer to the principles of teaching applicable to average ability and, including well over half of the entire population, as contrasted with the special methods that should be devised for the two extremes of very highly endowed and very dull; or it may mean the general principles applicable to all teaching as against the specific methodology for certain subjects. This last is the common use.

Work has been going on for some years toward the acquisition of experience in the teaching of the very dull and the feeble-minded. After all, it is to be expected in the training of these children that processes will be slower and limitations will be reached sooner. In the field of the development of the very highly endowed, on the other hand, where the expectations are unknown, little information has as yet been secured.

The principles of general method in the commonly accepted sense have been the subject of study for a great number of years, representing, as this field does, the most engrossing subject of thought for the greatest educational leaders and thinkers, among them Rousseau, Pestalozzi, Herbart, and Froebel. Practically all the innovations under current discussion have a substantial basis in the thinking of these men. Two phases of general method currently discussed were particularly referred to; namely, socialization of procedure and the project.

Measurement as an educational movement is the effort to apply to the processes of education, and for the pres-

ent particularly to the products of education, precise, objective, and verifiable methods of measurement and classification. In addition to the measurement of potentiality, which is really a development of psychology that has been adapted for educational ends, there are being developed standard tests for measuring the outcome of instruction in all fields and, as a consequence, in setting standards. The same general method is also being employed for many other educational ends—as, for example, in measuring the efficiency of school buildings, of teachers, in judging the value of text-books—and will doubtless be applied to other fields in ways still unforeseen.

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Readers interested in the method will find the first, and those interested in the various aspects of exact educational research will find the second, of the following journals indispensable:

Journal of Educational Method. . (World Book Co., Yonkers, N. Y.)

Journal of Educational Research. (Public School Publishing Co., Bloomington, Ill.)

PART V
IN CONCLUSION

CHAPTER XVI

NINETEEN MAJOR PROBLEMS IN THE ELEMENTARY-SCHOOL FIELD

Educational Problems Are Never Settled.—Education to the practitioner is, as we noted in the opening chapter of this volume, primarily a problem for solution. The primary factors that condition its solution are variable, as is the case of the child to be educated, or in flux, as is the case with the social organization for which the child is being educated; and the basic sciences which contribute toward the solution of problems are constantly enlarging in scope. All of which means that it is not possible in this field to arrive at final answers and solutions. A discussion of the problems of education must ever tend toward, but will never lead to solutions. It is a question of constant change and adjustment.

“Experimental education, then, must be defined in terms of change. This means that there is no permanent solution for any school problem, but each one must be constantly redefined in the light of new evidence. It means that the educator must stand ready to open and reopen each question, follow where the argument leads, investigate, study, and experiment, and then from the obtained results evaluate, criticize, and formulate conclusions, which may serve only as a tentative basis for more experimentation. . . . Nothing is ever completed. No

question may be closed up. . . . Finality is an unused word."¹

But, merely because finality and fixity are neither desirable nor attainable, we must not allow ourselves the implication that thinking in the field of education can be merely metaphysical. Our thinking in Education should not be static—an end itself. It must be dynamic, examining proposals with a view to their availability for immediate trial. We have in the foregoing chapters made a survey of the general foundations of elementary-school practice in the United States at the present moment, noting its historic background, the political, social, and economic factors that condition its practice to-day, and have found under almost every topic discussed certain immediate and still unsolved problems. It will be the purpose of this chapter to make a restatement of the problems in the elementary-school field that are pressing for immediate solution,—problems that have arisen naturally out of our discussion—in order that we may have before us as a direct outcome of the preceding survey a systematic prospective of the ground next to be conquered.

These topics have been gathered under nineteen main heads or points. In some instances there will be indicated merely the fact of the existence of the problem, and an intimation of the necessary approach to its solution. In other cases, definite proposals for action will be made. In all cases, the questions under discussion are challenging. It will be convenient to consider these problems under three main headings, i.e. those involving primarily or-

¹C. H. Johnston, *Junior-Senior High School Administration*, p. 14. (Scribner's, 1922.)

ganization and administration; problems which remain to be thought out as basic educational theory for the elementary school; and, finally, those questions which, though of essential importance in elementary-school practice, will have to be studied by educational psychologists.

A. Problems of Organization and Administration

I. Enlarging the unit of control.—The suggestion was made in the foregoing chapters that no unit of control now existing in America with the exception of five or six of the largest cities, is sufficiently extensive for the effective education of children in accordance with current educational ideals. The suggestion was made that the State itself be made the unit of educational administration. There was a time when consolidation was urged on rural schools because they were too small in numbers to furnish the advantages of graded instruction, of enriched curriculum, and of expert supervision; but the time has now come when consolidated schools are themselves too small to furnish the advantages of differentiated education for the gifted and dull, to provide special facilities for defectives such as the deaf, blind, and crippled, and children suffering from speech disorders, to provide health supervision, requiring as that does extensive organization of nurses and medical specialists. The same arguments that applied to the consolidation movement, apply to-day to the suggestion that the unit for organization be enlarged to the point where the resources of the State may be applied to the education of the children of the State.

The greater the progress made by the most forward-looking cities in the field of education, the greater be-

comes the unjust disparity of educational opportunity within the States,—a disparity that may be noted in almost any commonwealth that contains a reasonably large city and remote agricultural, lumbering, or mining districts. The presence of large numbers of children, and the aggregation of wealth in the cities, gives the city child the advantage of every educational advance and, conversely, deprives the non-city child. The mere difference in the efficiency of the enforcement of compulsory attendance laws operates against non-city children.

But this disparity of opportunity as between city and non-city children is not the only reason for suggesting State control. Two other considerations may be mentioned in support of that form of school organization and control, which affect city and country children alike or almost alike. This form of organization would make provision for the opportunity to make a career in education, an opportunity which does not now exist and the absence of which bars many from entering the profession. It would also enable us for the first time to organize education in America on highly efficient lines, by establishing a number of parallel types of service corresponding with the actual development and needs of the schools. The inability to make a career in education based on the fact that there is little scope for promotion, and that the teacher must constantly change her employer, would be done away with by State-wide organization for the maintenance of schools. Furthermore, it would be possible to organize the service in the form of a number of fields of endeavor as, for example, the field of classroom teaching; the field of administration; the field of supervision, experimentation, theory, and teacher-training. By keeping

open the possibility of transfer from field to field, perhaps by making service in one a condition for entering the other, by moving people in the service from post to post within the chosen field, we should avoid the present haphazard system which seems to offer to the mass of the teaching personnel little hope for advancement and hence little stimulus for professional growth.

Pending such reorganization it has become important that school units, even where they are as large as cities, make an effort to consolidate. Units which for standard school purposes are large enough, and can offer graded instruction and an enriched curriculum, will find themselves too small, because of the rarity of occurrence per thousand of the population, for such purposes as conducting graded schools for the blind and deaf and crippled. For the effective maintenance of city schools for most non-typical groups as well as for such purposes as health supervision, partial consolidation ought to be effected between the smaller cities where possible, or between cities and outlying territory.

Pending, too, State-wide organization for purposes of school maintenance, an effort must be made to equalize school opportunities within the States. An increasing financial support by the State on the basis of State-wide taxation such as was recently instituted in California is one manner of attaining this equalization. Measures of ever-increasing stringency, such as the certification of teachers, and the establishment of State supervision backed by authority, will also tend to equalize opportunities. One of the most obvious needs in this direction is for State-wide administration of compulsory education legislation. The compulsory education laws

as they now stand on the statute books of the various States provide no very effective means for their enforcement. School authorities in cities commonly maintain attendance departments for that purpose, but in rural communities there is ordinarily only a poor means of enforcing the law. Communities, too, that do not approve of the law are reluctant to enforce it. The administration of the compulsory education law should be taken from the hands of the local authorities and centered in a State-wide organization created for that purpose.

II. Need for administrative control.—There are too many laws regarding schools on the statute books of the several States, and there is correspondingly too little power in the hands of State boards of education. It is a defective theory which holds that a legislative body is competent to make regulations in a purely technical field. Even if the members be competent, the means of passing legislation is too cumbersome, depending almost always on outside initiative. Moreover, legislation is uniform, whereas the schools must adapt themselves to variation; and, finally, legislation is inflexible and cannot rapidly adjust itself to new discoveries.

In the field of the regulation of public-utility corporations, most of the States have found it wise to establish commissions with discretionary powers to regulate their affairs. Such commissions may employ experts, conduct investigations and make rapid decisions by administrative order, and thus have practice conform to reality. It is high time that in the very technical field of education, the legislatures cease the practice of passing uniform laws, and create instead commissions exercising large discretionary powers. One of the easiest examples that may

be cited is that of detailed, uniform, compulsory education legislation to be found on the statute books of every State,—legislation which does not now conform to educational theory. A change which could be made by the commission on the advice of experts with ease cannot now be effected without the tedious process of undertaking the education of the legislative body.

III. Compulsory education regulation.—The time has passed for uniform compulsory education laws. Certain defectives as, for example, the deaf and blind, cannot be given the ordinary rudiments within the time usually provided. Certain types of very dull children may well be excused from attendance at school at an age below that required by the most advanced States. Certain unusually well endowed children ought not to be permitted to end their formal training at the age limit of the present compulsory school law. Such children ought to be retained in school even though it be necessary in certain instances to subsidize the parents. The present basis underlying compulsory school legislation is humanitarian rather than strictly and scientifically educational. This legislation is frequently drawn quite carelessly, and loaded with complicated and unnecessary exemptions.

Educational theory and practice to-day demand special provision for physical and mental defectives. In addition to considerations of educational theory, compulsory education legislation should be based on economic considerations weighing the possible productivity of the child and the cost of maintaining school facilities for him beyond a certain age, against the loss from the social and individual point of view that might result from

less than adequate training. This legislation should also rest on what we know of psychology and physiology, in order that we may determine the earliest period at which the child may be permitted to go to work without handicaps that are purchased too dearly with the meager amount that the child may earn for the first few years of his employment. In place of the complicated part-time and child-labor laws, we need, so long as we depend on legislation, codified child-welfare laws based as far as possible on the available technical information, information that should eventually yield principles on which to determine the proper basis for deciding the most advisable time for beginning school work, and the ultimate capacity of various types of children.

Finally, we require under this head, State-wide in place of local enforcement machinery, the abolition of local option in the matter of compulsion and maintenance of schools, a rigid limitation of exemptions from the operation of the law, and regulation of non-publicly supported schools which children are permitted to attend on the theory that they are receiving instruction at least equivalent to that offered in the public schools. Such regulation, concerning itself with attendance, curriculum, teacher-ability, and pupil achievement, represents the right of the State to interest itself in the education of the citizen, and would be more fair than the intolerant demand, making itself heard in some quarters that all privately maintained schools be abolished.

IV. Teacher-training institutions and the teaching career.—The State teacher-training institutions face the problem of conforming to new facts in at least two ways. In the first place the establishment of the six-grade school

which is now rapidly taking place should mean a better use of the prospective teacher's time available during the years of instruction; in the second place the departmentalization of the six-grade school, if it should find favor extensively, should mean a reorganization of the teacher-training institutions in such a way as to provide specialists in various fields for the elementary schools.

One of the gravest problems now facing the teaching profession and, therefore, the teacher-training institutions is that of somehow counteracting or eliminating the present caste barriers that separate the various classes of teachers in the service of the State. The organization of our schools, the causes and origins of which have been traced in preceding chapters, is such that there is a tendency to attribute superiority to the secondary teacher and, indeed, to express such superiority in terms of salary differences. The departmentalized elementary school offers an opportunity in this direction.

Some teachers will prefer to specialize in the education of early childhood. This desire should be recognized, fostered, and not held against them. Others will specialize in certain subjects. For these the way should be opened for advancement along the line of their interest if, perchance, they should discover a greater opportunity for service in the junior or senior high school. If the teacher-training institutions themselves do not expand to include training for secondary-school service, as it seems probable that they will in some sections of the country, then they should establish such relations with colleges and universities as will facilitate this advancement and progressive elimination of our undesirable present arrangements.

Salary is an item that must be considered in this con-

nection. The teaching of children is as important as the teaching of subjects. Given similarity of training and experience, there is no reason for the larger salary in the high school.

It will make for the improvement of elementary education to do away with the hierachal method of remuneration now in effect, and to base teachers' salaries on training, experience, and effectiveness of service rather than on type of school in which work is being done.

V. Organizing education in conformity with theory—the six-year departmentalized elementary school.—In spite of the fact that the six-year school as a proper form of organization is universally agreed to, the eight-year arrangement goes merrily on. It is most interesting to note what power there is in the mere fact of established habit. The fact that an institution has always existed seems to give it momentum to continue to exist, and gives the color of irreverence and violent sacrilege to all efforts to dislodge it. Administrators who find themselves excessively slow to undertake changes in accordance with the demands of commonly agreed upon theories for reorganization, might do well to meditate on the brilliant if, perhaps, somewhat facetious assertion of Professor Robinson² that "the fact that an idea is ancient and that it has been widely received is no argument in its favor, but should immediately suggest the necessity of carefully testing it as a probable instance of rationalization."

We should witness almost immediately and everywhere, the establishment of the six-year, and possibly the departmentalized six-year school. To take up the latter problem first: Departmentalization of the elementary

²J. H. Robinson, *The Mind in the Making*. (Harper, 1921.)

school, if the desirability of departmentalization be conceded, still remains to be thought out in detail. Nothing can be said to be settled as a result of the meager experimentation so far conducted. The time for beginning departmentalized work, the subjects in which teachers are to be expected to specialize; the group of subjects that is to be retained together as one field; the type of program and the best organization of the teaching personnel—these questions still remain for solution.

But the mere regrouping of children into three schools instead of two is not enough. The new arrangement should yield very definite results. The current practice of conforming to this theory by regrouping children in buildings and even by departmentalizing the work of the seventh and eighth grades within the new junior high school is not sufficiently fundamental. Reorganization should mean to the child a saving of time in the accomplishment of his work. Between the time of entering school and the time of commencing technical university work, the European student now gains four years on the American. While it may not be desirable to save that length of time in America, and certainly will not be desirable to make any such attempt at the present time, the reorganized three-school systems, the elementary, junior high, and senior high school, should between them send the American student to college earlier than is now the case. The junior high and the senior high school should on some basis, the details of which are out of place here, consume less than six years or else send students to college for a shorter period of additional training of a general character than seems necessary at present. If the reorganization means that the elemen-

tary school has become more effective and that it does almost all of the work in six years that was formerly done in eight years, then the two schools which follow have more time than was formerly available and should show results.

Finally, the impracticability of establishing a junior high school because of lack of numbers, need not act as a deterrent from the establishment of the six-year elementary school. In such instances most of the advantages of the reorganization can be attained by means of the six-year high school and, in addition to the improvement of that institution made possible by the additional numbers, which would automatically increase the teaching staff and consequently enlarge the curriculum possibilities, such an arrangement would, also, improve the one- and two-teacher elementary schools of sparsely settled districts, by minimizing very definitely the difficulties of the ungraded school.

VI. New ideals in city organization.—We may recall here the proposal of another chapter that the management and organization of city schools be democratized by giving the entire personnel a voice—of authority, not suggestion—in the education of the children in their charge. The suggestion was made that if the teachers are to be a professional group responsible for education, not mere employees charged with obedience, then the powers actually possessed but really not exercised by the Boards be given to the teaching body instead of as now exclusively to the superintendent. While anything like definite outlining of the type of organization for the purpose of exercising this power is premature, the writer ventures to suggest the following as a basis for discussion: Let

the basic unit be the school, with the right in the hands of the entire staff including the principal, to make decisions in all matters that have been declared of local, not city-wide importance, and in which local variation is permitted. Let each school send representatives to city-wide councils, three in number, representing respectively the problems of elementary, junior high, and senior high school education. Let these three bodies, in turn, send representatives to the most general and most important city council, meeting with the superintendent as the other councils meet with supervisors and other representatives of the central office. In each instance let there be power to make recommendations to the Board who exercise final authority, not the privilege of making representations to the superintendent who may or may not act on them at his pleasure. Finally, let the Board of Education by general regulation leave certain defined matters to be decided upon by the various bodies referred to, at their discretion. Let them formulate a constitution within whose provisions the various bodies may pass legislation.

VII. A department of home contact.—The reader will have noted in the preceding chapters that the school is developing many points of contact with the home. The nurse on behalf of the health department is visiting the home for the purpose of advising regarding nutrition, medical care of children, and other purposes. The visiting teacher is visiting the home on behalf of Americanization and improving home standards. The attendance department enters the home either for purposes of compelling compliance with the law or in a friendly manner to assist in overcoming obstacles in sending children to school. The extension department is dealing with the

home and with the supervision of the child during non-school hours. Parent-teachers' associations are to be dealt with, and other types of work might be enumerated.

In the larger cities these various types of contact are being made independently by the various departments enumerated. It would seem that the time has come for the establishment in the city systems of centralization of the departments and activities that bring the school into formal contact with the home. Such a department would, among other activities, undertake in the first place, leadership in community activities, including Americanization, management of day nurseries and baby clinics, organization of and relations with parents' associations, and interest itself and represent the school in such undertakings as the Red Cross, the movement for thrift, and neighborhood activities. The department would be responsible for all types of home visiting, whether for the purpose of attendance, health, consultation regarding a child's work, or instruction of the mother. Finally, the department would be responsible for all extension activities other than instruction, including adult recreation, athletic and social.

VIII. A department of special education.—Another department—one that has been organized in a number of the larger American cities and should become universal—gathers in the hands of one central office authority the educational interests of every type of deviate who requires special attention. Aside from the technical information and training necessary for those in actual charge of the various types of special education, there are certain interests which these children have in common, such as budget, selection of teachers, equipment, and centraliza-

tion, which should be centrally gathered and considered by one department.

While the teachers in charge of the various types of deviation may be prepared to do the work for which they have been engaged, it will be the business of this department to develop a policy, to establish new kinds of work, and alter or combine new types. A number of important questions now face city systems, questions that would center in this department. These may be briefly considered.

IX. School provision for the various non-typical groups.—In terms of educational theory, outlining the training that will make for their best interests, and for those classes who are properly a charge of the city schools rather than of the various institutions maintained by the State, the problem of establishing educational facilities of a special character still remains to a larger or smaller extent to be faced in most of the cities and almost in its entirety in non-urban territory. This entire subject requires consideration on the part of districts and States. It will be necessary to establish more detailed provision for the discovery by census, as well as for the proper education when they have been located, of non-typical children. Particularly important is it to take up for discussion the at present controverted question as to whether the deaf and blind should continue to be educated largely in residential State institutions. Finally, the education of cripples, for reasons already given in preceding chapters, would seem to be in a very particular sense the business of the State. At present it is difficult to ascertain the educational status of crippled children. The room made in institutions for the deaf and

blind after the city school systems have to some extent undertaken the education of the blind and the deaf, could be used for housing crippled children for educational purposes.

X. Special full-time schools for speech defectives.—It is the opinion of the writer that one of the most pressing problems in the field of special education is the establishment, particularly in the larger cities, of a central full-time school for speech defectives, where these children may find the entire school organization all the time organized with a view to overcoming their particular deficiency; where all the teachers, regardless of subject, will be specially trained for dealing with these children, and will be accustomed to and expect the slower tempo and other of the characteristics of the speech defective, which are so annoying to the teacher of the ordinary school, and so tragically injurious to the child who causes the annoyance.

XI. Need for a theory regarding the educational function of the principal.—A theory of the building principalship remains to be developed. If the principalship is an educational office, then the principal should function not as a mere medium for executing the decisions of the superintendent, but as a co-administrator. Agreement with this theory would involve, first: that assistance be furnished the principal for routine work in order to relieve him for educational service, and that discretion be given him for local deviation from general city-wide educational policies. The present type of city organization is very orderly in theory and appearance, but systematic and symmetrical organization is always to be regarded with some degree of suspicion, since life does not always lend itself to such complete perfection of organization.

B. Problems of Basic Educational Theory

XII. A theory for compulsory education.—The need for new practice in this field was pointed out in the section on administrative problems; but new legislation, new provisions, whether made by a legislature or by an administrative commission clothed with authority, must be based on the advice of students of the question. The principles must be thought out by the teachers. At what age shall children be compelled to begin school? For how long a period shall they be compelled to remain in school? Is it possible to discard the passage of time as a determining factor and deal entirely in terms of ultimate attainment in relation to intelligence quotient, and in that way establish an exact end for the compulsory period? What shall be done to meet the facts of variation in ability? What provisions shall be made for mental defectives or non-typical children of other kinds, as, for example, the deaf and the blind? Is it feasible to advise economic assistance to parents of highly endowed children who find it difficult to maintain them in school? These questions are educational in character and educational procedure should in this field replace the humanitarian theory on which compulsory education laws have so far been based.

Almost all present compulsory education laws contain clauses exempting children from school earlier where their financial assistance is needed. At what point is it fair to permit this to be effected? Is it possible to establish a quotient which shall in numerical terms indicate the end of the compulsory period, taking into consideration chronological age, intelligence quotient, and attainment?

Although we have begun to realize that children vary in capacity and in the rate of development, compulsory education laws still remain uniform on the statute books. A uniform law in terms of chronological age and number of years spent in school can no longer satisfy educational thinkers. From their point of view, the time when formal education may begin and the time at which it should properly end for various types of children will have to be restated in educational terms, and toward this restatement the field of psychology has its contribution to make. Such differentiation, it is fair to say, it is now impossible to make in any objective, verifiable manner.

XIII. Units of time and size.—What is the most effective number for the best conduct of an elementary school, below or above which the school would be detrimentally affected? For purposes of morale, or coöperation, of school government, and from the point of view of the leadership of the single individual at the head of the institution, there must be some ascertainable, some favored school size.

What is the most effective number of pupils per class? There must be a number below which both pupils and teacher lose all those advantages that come from class instruction as a result of the operation of the gregarious instinct. Similarly, there must be a number that is too large for effective work. It is clear that no single number can ever result from study in this field because type of intelligence, subject taught, chronological age, as well as method followed, must all contribute ultimately to a solution of this problem.

How long shall the school year be? How long shall the school day be? How shall the vacations be distributed

throughout the year, and the rest periods throughout the day? If it is desirable that the child shall stay in school for a longer number of months, but a shorter day, for a shorter number of months, but a week of less days, or any other condition not now found, it will be necessary to adjust school methods in terms of the ultimate solution of these problems. These questions represent problems in the field of instruction itself.

XIV. New principles for classification; differentiated education.—Another problem facing those engaged in instruction, is the one involved in the difficult task of classifying children for purposes of instruction in the light of contemporary psychology. Bases for homogeneity must be found from the point of view of the curriculum as well as that of rate of progress, on the basis of the many factors involved, among others the fact of variation at any given chronological age, in intelligence, maturity, emotional and physical development.

The psychology of individual differences has so far succeeded in establishing a highly reliable method of quantitative differentiation between children whereby an index known as intelligence quotient may be secured. On the basis of this diagnosis we are now able to group children, to segregate them in ability groups, such as the gifted, the average, and the below-average types. On this basis, too, we must begin to establish a special theory of education for each group, and particularly for the group known as gifted.

But within a presumably homogeneous group of gifted children, education to be of the utmost value should be individualized. If, as we believe, the potential leadership in every field is to be found within the gifted group, a

way must be found for determining in early life the specific potentialities and abilities of every child in order that these may be fostered and cultivated. We require, in other words, from the field of psychology the development of a method of qualitative differentiation within a quantitatively homogeneous group, that may now be made up on the basis of the established methods of intelligence testing.

The ability of the school to discover the children capable of such development, and to give them training in the arts from the point of view of participation both in enjoyment and in creation, depends on a study of the sequential appearance of emotions in children, a tabulation of those which are desirable and should be developed, and those which do not have any social or individual value to-day. The relation of emotional development to physiological and mental age will be found important.

The question of differentiating education in accordance with mental ability is still entirely open. While it is vaguely admitted that something should be done for the gifted child, and while special work has perforce begun with the defective child, the question is still open and thinkers are by no means in agreement. Even if the suggestions made in the foregoing chapters should be adopted, the questions still remain as to what the intelligence character of the larger or central group shall be, and of what the curriculum provided for the gifted child shall consist.

Even after the differentiation of the population into three groups on the basis of intelligence quotient, the question of the best means of gathering children into a

single class unit still remains open. The grade method unmodified is admittedly undesirable, and no modification of that method has proved completely helpful. A new theory for the organization of groups within each class that shall present sufficient homogeneity for ideal simultaneous instruction remains to be solved. Shall the school be organized into some other divisions of the six years than at present in terms of grades, or shall the work be divided into units of attainment to be realized by individual pupils at their own rate of progress? Shall simultaneous instruction mean a group of children actually attempting to cover certain ground together, or a group working under one teacher, each at his own rate?

These are the many problems that confront the school under the general heading, homogeneity. The older methods in the elementary school bravely attacked the widely heralded evil of "retardation" on the assumption that it could be solved by improved teaching methods, corrected curriculum ideals, frequent reclassification and intensified attention to the individual child. The basic assumptions were comparatively approximate ability and hence universally achievable goals, if only the work on the part of the school were well done. To-day it is plain that we face a future of grouping in accordance with ability, curriculum goals in accordance with capacity, differentiated procedure, equipment, and even teaching personnel.

XV. Defining the scope of the six-year school.—The six-year elementary school does not mean the first six years of the old eight-grade school. The detailed educational theory for the six-year school still remains to be finally established. A reorganization of the entire cur-

riculum that shall make the school a consciously incomplete institution so far as the child is concerned, and shall establish a boundary line between the elementary and the junior high school in specific educational terms of attainment rather than as at present, in terms largely of age, still remains to be thought out. It will be necessary to define the meaning and scope of elementary education, and to agree upon definite requirements that shall be met by the product of the elementary school as a result of its work.

XVI. A theory for emotional education.—The problem of establishing a technic for emotional education, which shall result in ideals, attitudes, and habits desirable from the social as well as from the individual point of view, is at present almost entirely unsolved. We have learned that education does not involve as we have so long assumed, merely the intellect, merely the capacity to learn. We know full well that it is easily possible to know and not to do. Good citizenship, ethical private life, good health, and many another important objective involves the will, the attitude, the ideal—the emotions. Of any systematic knowledge of the order in which emotions appear in the life of the child; of any standardized means of measuring variability or intensity, or the possibility of fostering or curbing emotions, there is a very great dearth. Indeed, this represents one of the most alluring fields still almost virgin to which the educational psychologists will have to address themselves. Not only intelligence, but emotions, maturity, and physical development all contribute toward the formulation of ultimate standards. The pedagogy of the emotions remains to be developed.

XVII. General and specific theory of special education.—It would seem reasonable to expect that physical defectives such as the totally blind and totally deaf would develop a corresponding special mental state that is somewhat different from the typical, and characterized more or less by similarity within the group. A certain exceeding sensitiveness to facial expression, and a tendency to misinterpret such expressions develops on the part of the deaf because they are not in a position to hear the modifying words. They rely, in other words, unduly on this facial expressiveness, and learn to read the signs more keenly than the hearing person. This is an introduction to the type of study that must be made of the special psychology of physical defectives to enable the teacher to develop these children with as much information regarding them as it is possible to secure.

More important still, the defect itself, as in the case of speech disorders, is rooted in psychological causes which we are at the present time in no very favorable position to probe. It seems to be agreed that a very large proportion of speech disorders can be cured by training and without the aid of surgery, which is sufficient evidence that the defect is based on nervous disorders or psychological disorganization. A method of taking and interpreting the history of such cases and diagnosing them in the Freudian manner, if that should prove useful, will prove of untold value to the teacher and consequently to thousands of children in every generation.

It is necessary, too, in the case of all types of defectives, to evolve in the first place reliable methods for securing general intelligence measurements within the particular handicap, and even more important to establish

certain diagnostic tests of a character to measure educational potentiality, that would save years of time and energy for both child and teacher.

In the field of the education of the deaf, for example, it is well known that a certain proportion of the population cannot master the lip-reading and speech that are now being favored in place of the manual method. In the case of these children who cannot master this method, much time and energy are being wasted before the fact becomes apparent. A diagnostic test that would disclose the facts is greatly needed in this field. Other tests in dealing with other types of deficiency will readily suggest themselves to the reader. The very delineation, in fact, of the meaning of typical in general terms, still awaits authoritative statement.

A general educational theory for the education of the physical defectives still remains to be established; a theory that must involve social as well as educational considerations. A special curriculum for each type of physical defect conforming to this general theory, remains to be established. It is not enough to give a general type of education within the limits of his own abilities to the blind or deaf child. It is quite probable that special procedure suited to his handicap can be established, involving not only different objectives, but different methods. The question as to whether the residential is the best type of institution for the blind and deaf still remains to be settled.

The educational help that can be given to speech defectives is very great, but the progress so far made by the schools in solving this problem is very small. The schools are probably more retarded in their progress in

handling speech defectives than in handling any other type of handicapped child. A method of diagnosing those speech defectives that present problems for school procedure, still remains to be devised, as does a classification of defects, and a set of principles for standard remedial procedure in the case of each defect.

C. Problems in Educational Psychology

All of the preceding problems dealt with under the topic of educational theory involve principles of psychology, as must be the case in every step of a procedure which has as its goal to create modifications in human beings. The two problems which follow may, however, be said to be particularly psychological in character, in the sense that educational policy must await their solution on a psychological basis.

XVIII. Schoolable age.—The work now done in various grades as well as the actual age for beginning school work, rests largely on tradition, and not on scientific determination. Is it possible to establish for every type of work done the schoolableness or educability for that particular purpose in scientific terms? The bases on which the child is to be admitted to school, and the problem involved in the determination of these bases, has been indicated in the preceding chapters. Is it not possible in terms of chronological, physical, and mental age as well as in terms of at present unmeasurable factors such as emotional status and maturity, to experiment with the various types of school work, and establish a means of determining the time when each may best be begun and accomplished?

When, for example, should a child enter school? We

now know that age itself is an index of no very great value, because by any given time children have arrived at different periods of development. It is a disregard of this fact that is now causing approximating one-third of all the children who enter school to fail in the first grade—a very expensive procedure in view of the fact that it is remediable. To a certain extent, it is not difficult to outline the probable course of the investigation to determine scientifically the proper age for beginning school. The entering child must have arrived at a certain physical status as, for example, the attainment of ordinary habits of self-reliance and endurance. He must meet certain mental conditions as, for example, mental age of the average of the group, the development of speech, the ability in some way to get on with others. There is, too, an ascertainable period which marks the end of effective home training, when the work of the school may best begin.

XIX. Truancy.—Nonattendance, as we noted in the chapter on that subject, has a number of causes, such as poverty on the part of parents, illness, attendance in private schools, and exploitation of the child for labor. Ultimately, however, we get down to a percentage of nonattendance that is definitely attributable to truancy, defined as that type of nonattendance which originates with the child, and is not materially induced by adults or caused by uncontrollable situations. A quite definite proportion of non-attending children who qualify under this head will, it seems quite certain, be found to be of low intelligence. The unsolved problem of psychology involves the determination of the causes of truancy on the part of mentally normal children.

To these questions it is safe to say that there is at the

present time no authoritative answer based on scientific investigation. Yet it is easily ascertainable by the most casual observer that truancy and the dropping out of school on the part of educable children have tragic consequences in the lives of many children every year. We face here a social maladjustment, which, when not diagnosed and remedied in school, must conceivably in a certain proportion of the cases be handled later on by less sympathetic agencies, such as the police and courts.

A study of the individual, involving hereditary background, intelligence, and particularly temperament, which will lead to some means of standardized diagnosis, and which will indicate some remedy that may be applied by the school, is greatly needed. Certain bases for this study are already at hand, such as the knowledge that truancy is more a boy than a girl problem, and that it is at its height in early adolescence. It remains for the psychologist to establish a routine procedure for discovering potential truancy and incorrigibility, to locate the root causes, and to outline a possible method for curing the child.

Bibliography

The student interested in the current problems of the American elementary school and their solution, should not fail to follow the reports of the Commission on Re-Organization of Elementary Education of the National Education Association. These reports are being published from time to time in part in the proceedings of the National Education Association and in part by The World Book Co.

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